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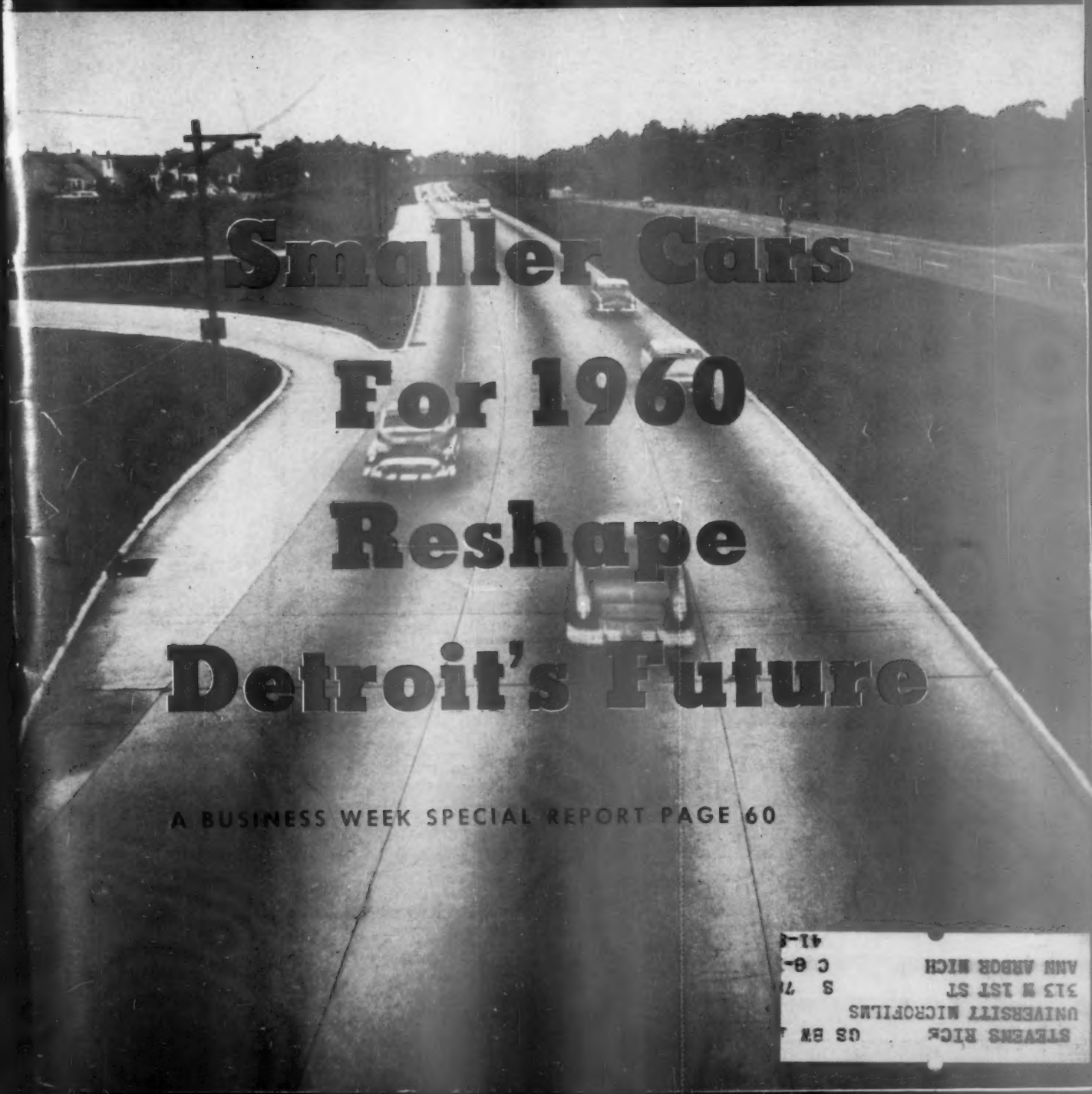
BUSINESS WEEK

A McGRAW-HILL PUBLICATION FIFTY CENTS AUG. 8, 1959



Smaller Cars For 1960 Reshape Detroit's Future

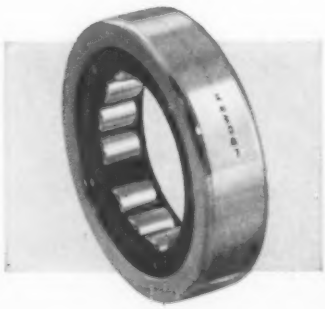
A BUSINESS WEEK SPECIAL REPORT PAGE 60

PAYLOAD . . . tons at a gulp on Bower Roller Bearings

They call it strip mining . . . where payload is king and "don't spare the rig". Take this scraper: aided by a rugged 'dozer, it's pushloaded in mere minutes. Then, with tons of rock and earth on its back, it takes off cross-country . . . dumps the load . . . hustles back for more.

Bruising bouts like this often go on 24 hours a day, put an incredible strain on equipment *and on bearings*. Yet today's bearings—*particularly those by Bower*—more than meet the task. Their basic design advantages, coupled with fine materials and precision manufacturing, have earned them a reputation for long service under the most severe conditions. And with rarely a shutdown for maintenance.

If you produce a product that uses bearings, specify Bower. You will find this extra measure of service in the full Bower line of tapered, cylindrical and journal roller bearings for every field of transportation and industry.



BOWER ROLLER BEARINGS

Bower Roller Bearing Division • Federal-Mogul-Bower Bearings, Inc. • Detroit 14, Michigan

In BUSINESS this WEEK *August 8, 1959*

GENERAL BUSINESS

THE DEPARTMENTS

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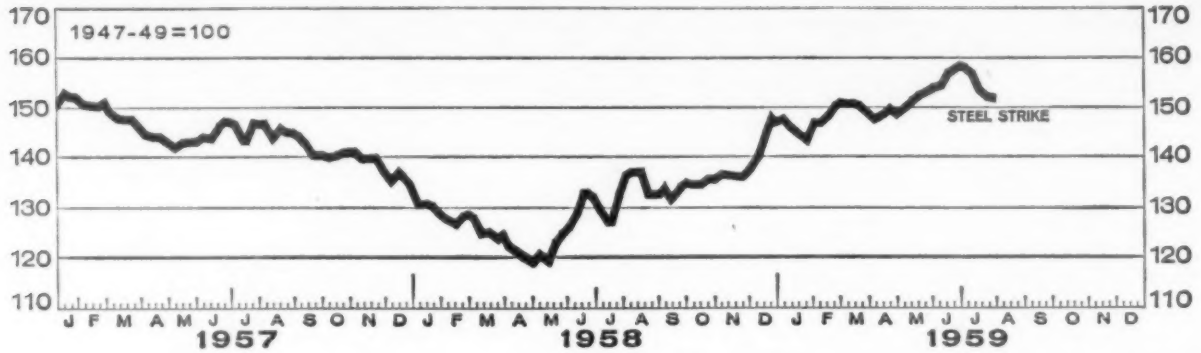
NUMBER 1562

FIGURES of the WEEK



	1953-55 Average	Year Ago	Month Ago	Week Ago	§ Latest Week
BUSINESS WEEK INDEX (chart)	**133.3**	**137.6**	**158.7**	**†152.9**	***152.3**
PRODUCTION					
Steel ingot (thous. of tons)	2,032	1,586	2,252	†345	**332**
Automobiles and trucks	132,806	80,374	139,829	†157,016	**144,888**
Engineering const. awards (Eng. News-Rec. 4-wk. daily av. in thous.)	$52,412	$87,102	$90,893	$87,314	**$76,729**
Electric power (millions of kilowatt-hours)	10,819	12,619	13,124	13,577	**13,775**
Crude oil and condensate (daily av., thous. of bbls.)	6,536	6,545	6,914	6,855	**6,808**
Bituminous coal (daily av., thous. of tons)	1,455	1,316	1,533	1,212	**1,207**
Paperboard (tons)	247,488	299,148	275,478	312,860	**331,482**
TRADE					
Carloadings: mfrs., miscellaneous and l.c.l. (daily av., thous. of cars)	70	54	65	56	**54**
Carloadings: all others (daily av., thous. of cars)	47	47	52	41	**36**
Department store sales index (1947-49 = 100, not seasonally adjusted)	121	111	118	118	**117**
Business failures (Dun & Bradstreet, number)	198	271	244	245	**252**
PRICES					
Spot commodities, daily index (Moody's, Dec. 31, 1931 = 100)	412.8	405.2	388.0	380.6	**382.9**
Industrial raw materials, daily index (BLS, 1947-49 = 100)	89.2	86.5	92.3	92.0	**92.2**
Foodstuffs, daily index (BLS, 1947-49 = 100)	90.5	88.7	80.1	78.6	**79.2**
Print cloth (spot and nearby, yd.)	19.8¢	17.7¢	19.5¢	19.5¢	**19.5¢**
Finished steel, index (BLS, 1947-49 = 100)	143.9	185.1	186.7	186.7	**186.7**
Scrap steel composite (Iron Age, ton)	$36.10	$42.17	$39.17	$39.50	**$39.83**
Copper (electrolytic, delivered price, E & MJ, lb.)	32.394¢	26.510¢	31.410¢	29.960¢	**29.955¢**
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.)	$2.34	$1.85	$1.90	$1.97	**$1.97**
Cotton, daily price (middling, 1 in., 14 designated markets, lb.)	34.57¢	34.85¢	34.19¢	32.99¢	**32.36¢**
Wool tops (Boston, lb.)	$1.96	$1.72	$1.86	$1.90	**$1.90**
FINANCE					
500 stocks composite, price index (S&P's, 1941-43 = 10)	31.64	47.57	59.74	†60.06	**60.53**
Medium grade corporate bond yield (Baa issues, Moody's)	3.59%	4.57%	5.05%	5.08%	**5.07%**
Prime commercial paper, 4 to 6 months, N. Y. City (prevailing rate)	2–2⅛%	1½%	3⅞%	4%	**4%**
BANKING (Millions of Dollars)					
Demand deposits adjusted, reporting member banks	N.A.	60,755	60,835	61,973	**62,214**
Total loans and investments, reporting member banks	N.A.	N.A.	103,476	104,672	**104,187**
Commercial and agricultural loans, reporting member banks	N.A.	N.A.	29,411	29,481	**29,492**
U. S. gov't guaranteed obligations held, reporting member banks	N.A.	34,361	29,980	30,702	**30,242**
Total federal reserve credit outstanding	26,424	26,328	28,042	28,705	**28,374**

MONTHLY FIGURES OF THE WEEK		1953-55 Average	Year Ago	Month Ago	Latest Month
Consumer credit outstanding (in billions)	**June**	$34.1	$43.1	$45.8	**$46.7**
Installment credit outstanding (in billions)	**June**	$25.2	$33.0	$35.0	**$35.8**
Manufacturer's inventories (seasonally adjusted, in billions)	**June**	$45.2	$50.2	$51.6	**$52.1**
Imports (in millions)	**June**	$902	$1,031	$1,264	**$1,369**

** Preliminary, week ended August 1, 1959.*
† Revised.

§ Date for 'Latest Week' on each series on request. N. A. Not available. Series revised.

THE PICTURES—Cover—Herb Kratovil; 26—W.W.; 28—Gene Pyle; 30, 31—Ted Streshinsky; 44, 45—Ernest E. Reshovsky; 69—Bettmann Archive; 70—Automobile Manufacturers Association; 73—(top left) Gene Pyle, (top right) World Wide Automobiles Corp., (bot. left) Joan Sydlow, (bot. right) Renault; 74—Ford Motor Co.; 80—Paul Finney; 81—(top right) Argentine Gov't., (bot.) Paul Finney; 82—McGraw-Hill World News; 114, 115—Mike Shea; 123—Joe Laird; 125—(left) General Motors.

WHAT IS TODAY'S MOST PERPLEXING PENSION PROBLEM?

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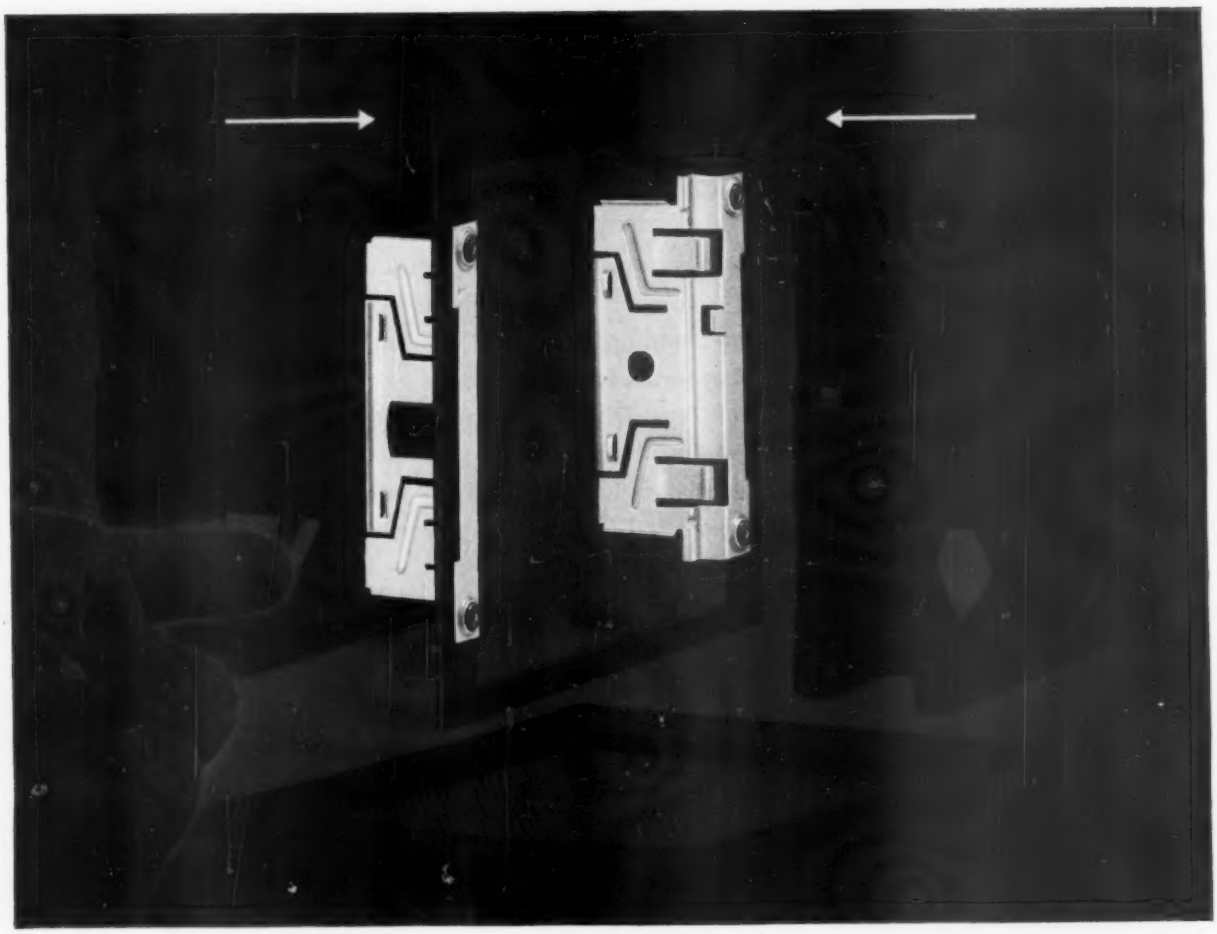

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READERS REPORT

B-School Rhymes

Dear Sir:

In re: Seasoning B-Schools with a Dash of Liberal Arts [BW—Jul. 18'59,p112]:

If this trend continues for schools of business to forget their primary mission to be Grade A business schools and become sickening B-imitations of liberal arts schools, I suggest the following bit of doggerel for business school graduates of the future:

"We're the new B-boys, cultured you bet,
We came for Business and what did we get,
Warmed over Arts and Humanities classes,
We're an excellent bunch of hybrid asses."

F. C. KIRK

WASHINGTON, D. C.

• Reader Kirk might be interested in another bit of doggerel recalled by one of our editors:

Hybrid asses, better known as mules,
Have always come from the business schools,
They sweep the floors and shovel the snow,
While the liberal arts boys run the show.

Dear Sir:

Your article on the change in business schools [BW—Jul.18'59, p112] was most interesting.

The concept of providing a broad general education for the management level is very fine providing the student has already acquired a specialty that he can offer for the immediate benefit of the company by which he is employed. Unfortunately, due to this emphasis on high level thinking by some business schools, many students fail to recognize that they will not be using these concepts during the first five or 10 years of their careers. As a result, they may never reach the upper levels since they have nothing to "sell" earlier.

This is a particularly acute problem in the undergraduate schools where the obvious answer is to try and give the student a little of both specialized and broad study.

It also clearly points out the advantages of the graduate schools of business where the student can be assumed to have a specialty so the emphasis can and should be

strongly on the long-range broad education.

E. M. KRECH, JR.
THE PROCTER & GAMBLE CO.
CINCINNATI, OHIO

Trademarked Product

Dear Sir:

We noted with interest a cover story on Itek Corp. [BW—Jul.18 '59,p78]. We wish to call to your attention that the word "Microcard" used on page 78 of that article is the trademark of the Microcard Corp. and its product. We have been in the field of information storage and retrieval for more than 10 years and have based our concept on a simple program and not one calling for the utmost in electronic efficiency.

It is our belief that no purely mechanical device will ever do the information storage and retrieval job practically except in the instance of rather simple kinds of information. . . .

C. D. GELATT
PRESIDENT
THE MICROCARD CORP.
WEST SALEM, WIS.

Nonsigner Clause

Dear Sir:

Business Week printed an article entitled the Fair Trade Comeback [BW—Jul.11'59,p63]. This article, in discussing the legal history of fair trade, states that the McGuire Act of 1952 overcame a flaw in the original fair trade law (Miller-Tydings Act 1937) by permitting manufacturers to use the nonsigner clause. This implies that the nonsigner clause was not used before 1952.

Actually, the nonsigner's clause first appeared in 1933 as an amendment to the California fair trade law. The idea grew in popularity so that the nonsigner principle was used extensively in many states between the mid-thirties and 1951. The trouble started in 1951 when the U. S. Supreme Court declared the nonsigner clause invalid in the famous "Schwegmann Decision." . . . This decision was probably the most important factor leading to the passage of the McGuire Act which had the effect of nullifying the Supreme Court ruling in the Schwegmann case. . . .

ALTON F. DOODY, JR.
SCHOOL OF LOGISTICS
AIR FORCE INSTITUTE OF TECHNOLOGY
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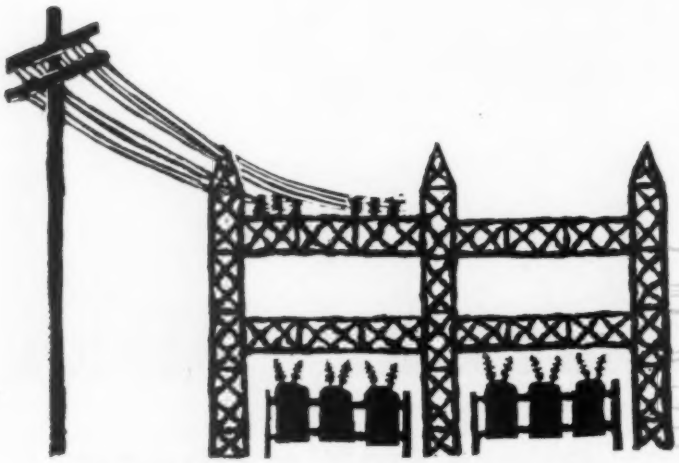

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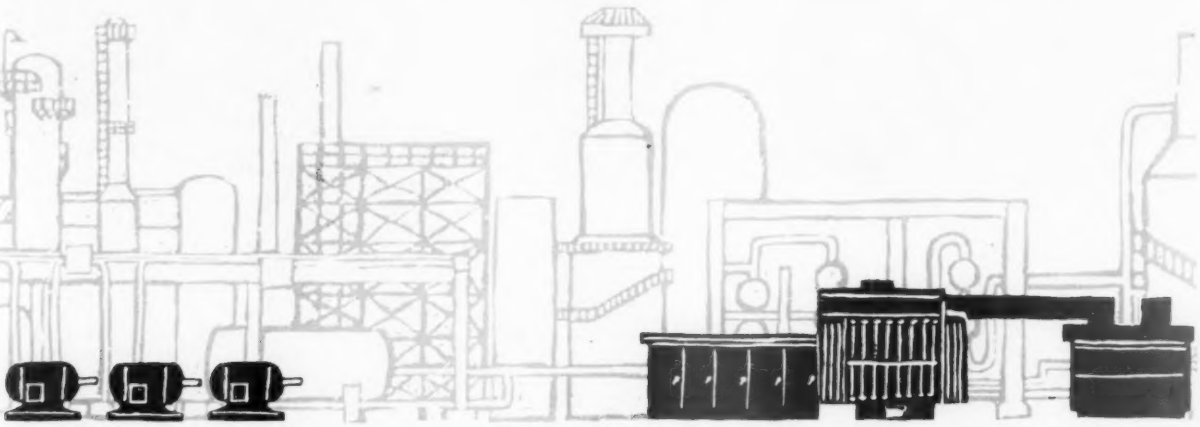
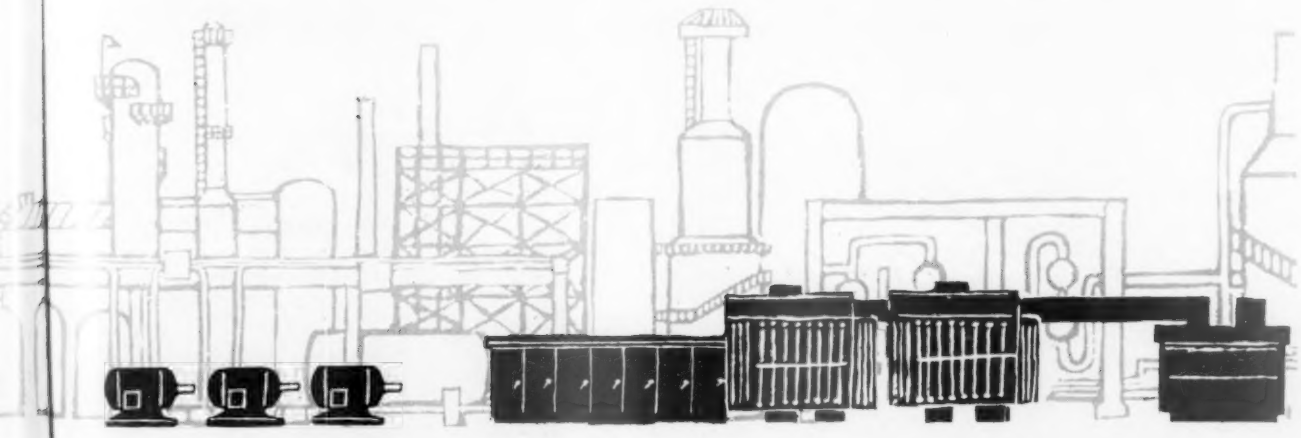


and expanded their Houston refinery



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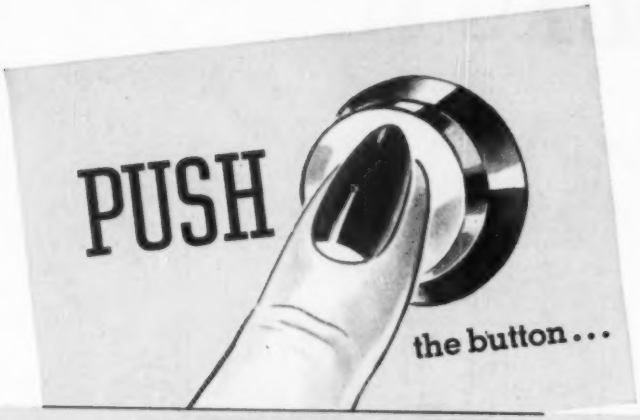

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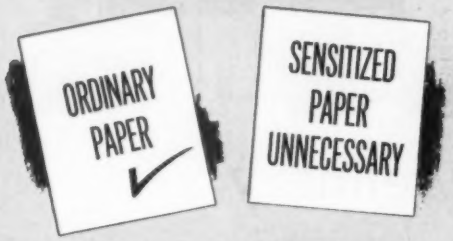

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STEPS IN THE RACE TO OUTER SPACE

Nuclear Rocketship

Despite the sky-high transportation costs, Lunar manufacturing should prove economically viable. With unlimited Solar power, controlled atmospheres and advanced automation, a considerable commerce could be realized in delicate instruments, rare minerals, reactor cores and other items that might be more efficiently processed or produced in the Moon's perfect vacuum.

To supply the Moon colonists, and to carry their production back to Earth, special rocketships will be developed. Nuclear energy is the most promising source of propellant power. The ship shown here utilizes nuclear fission for heat and hydrogen gas as a working fuel. From pressurized tanks, the gas is fed through a heat exchanger, expanded, and expelled for the motive thrust.

When the craft leaves Earth, it carries only enough gas for a one-way trip. For, by extracting hydrogen and oxygen from Lunar rocks, Moon settlers will be able to refuel the rocketship for the return voyage. This will permit smaller fuel tanks on the craft and larger payloads.

Inertial navigation systems will play an increasing role in the exploration of outer space. ***ARMA***, now providing such systems for the Air Force ATLAS ICBM, will be in the vanguard of the race to outer space. ***ARMA*** . . . Garden City, N. Y. A Division of American Bosch Arma Corp.

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Despite its low price, the new Bantam is a true Verifax Copier in every sense. Simple to operate. And so trim and compact you will find room for one in the smallest office.

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Price shown is manufacturer's suggested price and is subject to change without notice.

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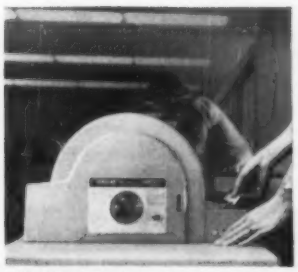
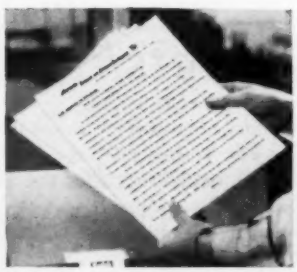
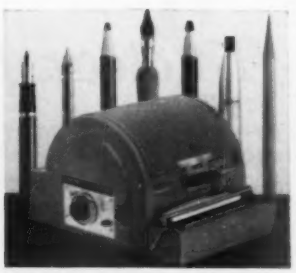


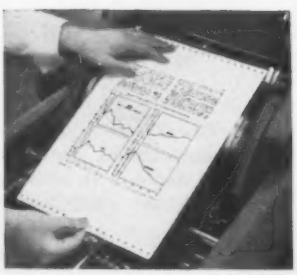
Makes 5 dry, clean, white copies in 1 minute for 2½¢ each. Verifax copies can be made on one or both sides of bond-type paper, card stock, printed office forms.



Verifax copies are sharp and clear . . . easy to read—have look and feel of a good letterhead. And they'll last as long as any typed record, won't fade.



Write with anything—you can copy ball-point, crayon—what have you—as easily as typed data. Even those purplish duplicator copies and rubber stamps are a snap!



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Crucible steel service

HOW ADVANCES IN MELTING TECHNIQUES PRODUCE NEW METALS AND ALLOYS FOR INDUSTRY

• ***Bearing and spring makers*** are now being supplied with steels of such high purity they virtually eliminate rejects during manufacture and premature failures in use.

• ***Aircraft and missile builders*** are getting an entirely new range of high strength and high temperature alloys — for rocket motor casings, pressure vessels, jet engines, airframes and structural components.

• ***Builders of nuclear reactors*** are being provided with higher boron content stainless steels that, surprisingly, are easier to work.

• ***And the metalworking industry*** is now using much more uniform and dependable tool steels that produce higher yields of finished products and longer tool life.

What's behind these developments? The answer is recent Crucible advances in the electric furnace melting of specialty steels. The vacuum melting processes are part of this progress.

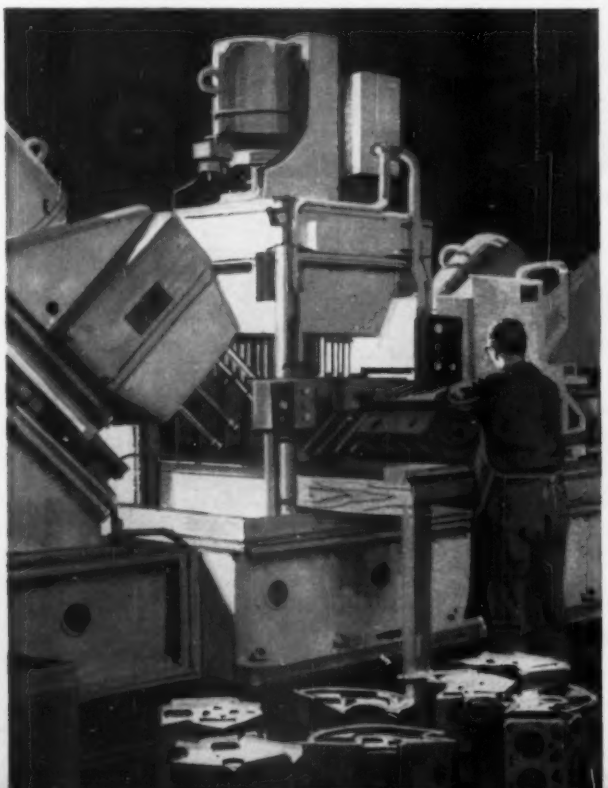
A new science, vacuum melting produces high purity metals by melting in a vacuum. It frees metals of gases and inclusions, increases their tensile and impact strengths and improves workability. In fact, it is the only way metals such as titanium can be produced.

To utilize vacuum-melting processes successfully requires a unique combination of technical ability, experience and facilities. Crucible acquired this combination through pioneering in specialty steels, high-temperature alloys and titanium development. So, today, Crucible employs the most advanced vacuum-melting techniques to produce the "purest" metals industry uses.

If you'd like to know how this progress in vacuum metallurgy can benefit you, talk to a Crucible specialist. Just call the nearest of our 32 branch offices and warehouses. Or write: *Crucible Steel Company of America, Dept. MH-05, The Oliver Building, Mellon Square, Pittsburgh 22, Pa.*

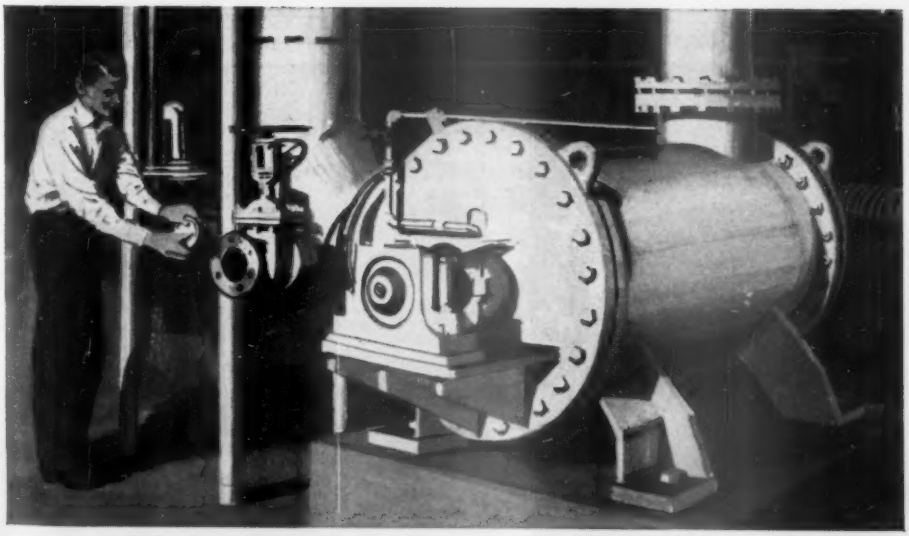
Crucible products: 4 of thousands

TOOL STEEL — Crucible tool steels are used to make broaches, drills, reamers, taps, dies and all other metal-forming tools. Here, a way-type multi-spindle boring machine precision bores multiple holes at the same time in an automotive cylinder block.



PERMANENT MAGNETS — The packaged energy of Crucible Alnico magnets is put to use in hi-fi and stereo components, TV, radar systems, generators, separators, lifting devices and instruments. Crucible supplies sand cast, shell molded, and investment cast magnets in all shapes, tolerances, finishes and sizes.

STAINLESS STEEL SHEET AND STRIP — The dairy equipment industry is one of Crucible's largest customers for lustrous, easy-to-clean stainless steel. Crucible produces all types, shapes and finishes.



TITANIUM — Crucible titanium is formed into heat exchangers, valves, tubing, liners for the chemical, paper and food processing industries. These industries find that titanium's corrosion resistance and low cost/life ratio often make it the most economical metal.

FROM CREATIVE CRUCIBLE — the one full range of special steels: high speed; tool steel; plastic mold; stainless; free-machining, high-strength, wear-resistant and standard AISI alloys; hollow drill; agricultural discs and shapes; heavy-duty coil springs; specialty alloys; permanent magnets; cold rolled alloy and carbon spring steels; titanium and titanium alloys; stainless and high alloy welded tubing; vacuum melted metals.

CRUCIBLE STEEL COMPANY OF AMERICA

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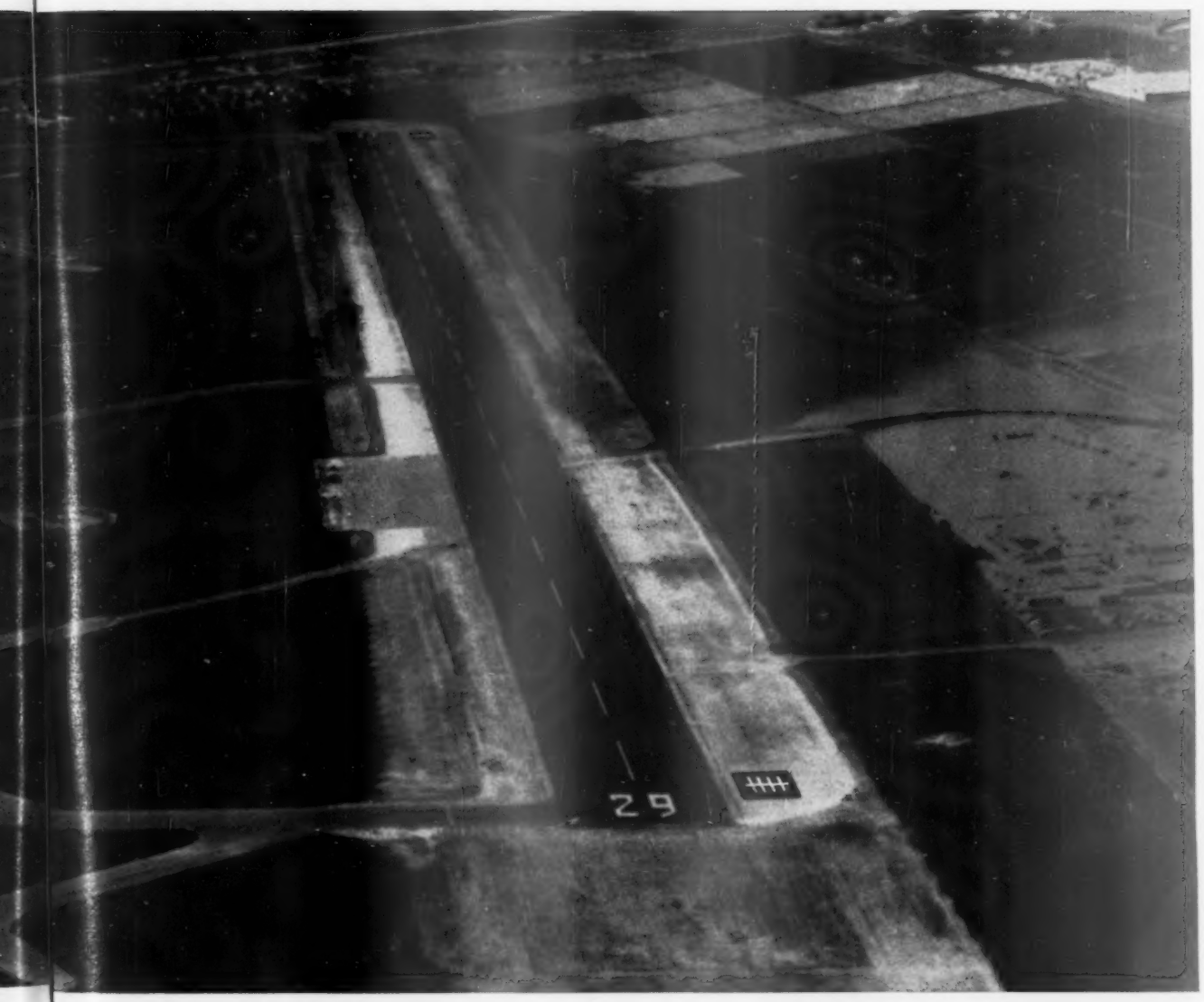
Scores high in short-field capabilities

JETSTAR, MODEL 329, SHOWN OVER 5,000 FOOT RUNWAY AT TORRANCE MUNICIPAL AIRPORT, CALIF.

Each dot on this map represents an airfield where Lockheed's new JetStar can land and take off – 28 times the number of cities where big jet airliners can land. This means added convenience and competitive advantage to forward-looking executives.

Fully pressurized and air-conditioned, the JetStar's spacious cabin has over 6-foot headroom throughout. Executive interiors can be customized to meet your specific requirements.



Your first flight in a JetStar will be a revelation. With full payload and full fuel tanks it takes off in less than 3,000 feet. It climbs 4,000 feet a minute, effortlessly. You're at above-the-weather altitudes (up to 45,000 ft.) before you realize it.

Cruising at 575 miles per hour, the cabin of the JetStar is amazingly quiet and vibration-free. Reason: the JetStar's 4 reliable Pratt & Whitney JT-12 jet engines—each developing 3,000 pounds thrust—are aft-mounted on the fuselage. This means added safety, too. Engines are *behind* pressurized areas, fuel tanks and wing.

The JetStar's excellent slow-flight characteristics enable it to make FAA-approved landings at airports with runways of less than 5,000 feet—at maximum landing weights. At these weights, the actual ground roll is *less than 2,000* feet. This compares favorably with current corporate aircraft that cruise 200 miles per hour slower than the new Lockheed JetStar.

Now in production at Lockheed's Georgia Division, the JetStar provides the world's finest transportation for the world's busiest men.

For a JetStar Route Study of your air transportation requirements, write: JetStar Commercial Sales, Lockheed Georgia Division, Marietta, Ga.

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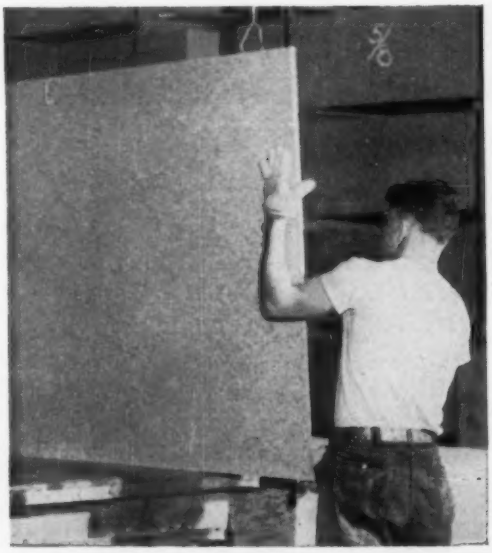
HOW *HERCULES* HELPS...

PACKAGE GLAMOUR TO PERFECTION—Pro-fax®, Hercules polypropylene, does it in this striking new aerosol container for Coty Spray Cologne. Called Petite Mist, it's available in four enchanting fragrances, in a choice of two eye-catching color combinations . . . either jet black or snow white, richly decorated with gold. Especially designed as a sturdy, lightweight travelling accessory, Petite Mist is equally at home in the most delicate feminine boudoir. For this truly modern package, Coty naturally specified Pro-fax—the truly modern plastic. Economical Pro-fax can live up to the most imaginative designer's expectations.



MODERN BUILDING TECHNIQUES—Particle board used as core stock in kitchen cabinets and plywood partitions as well as for floor underlayment relies on Paracol®. This Hercules wax emulsion adds water resistance and increases dimensional stability of the board. Paracol treated board has less tendency to warp, can be sawed more readily, holds nails firmly.

HOTELS "LOOK LIKE A MILLION"—Multicolor lacquer enamel was the finish chosen inside and out by the multimillion dollar Hotel Pierre Marques in Acapulco. An attractive, tough, durable finish, it constantly withstands ocean spray and high humidity. Multicolor lacquer is available under different brand names from many paint manufacturers.

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CHEMICAL MATERIALS FOR INDUSTRY

HERCULES

059-5

BUSINESS OUTLOOK

BUSINESS WEEK
AUG. 8, 1959

Construction shows no sign of feeling a pinch in steel as yet—nor even of worrying about such a pinch any time soon (page 29).

The industry is noted for making do. In earlier periods of steel scarcity, **prestressed concrete** and **wood** beams have been substituted.

Moreover, the **aluminum** people (panting to increase their already substantial share) will gladly help construction as long as they're open.

Actually, order books of mills supplying structural steel haven't indicated any extraordinary demand this year. And, to protect users, they pushed shipments up very rapidly as the second quarter went on.

And another important consideration: **Housing, which needs relatively little steel, is now accounting for about 40% of all construction.**

—•—

Dollar value of construction work is at a stable—and high—rate.

The **value of work put in place** in July stayed close to the $55-billion rate that has persisted all year (on a seasonally adjusted basis). This has been possible, though, only due to **some changes in the "mix":**

- **Housing** has risen less than seasonally, **will turn down later.**
- **Road building** (which joined housing as a leader in last year's upsurge) **has slipped.** Contract awards have been declining—and work due for bids is being held off while Congress wrangles on pay-as-we-go.
- **Commercial building,** up briskly even last summer, now is **bettering its year-ago rate** by about 15%, and awards point higher still.
- **Industrial work,** still dragging bottom, **will rise sharply** as contracts recently awarded get on to the actual construction stage.

Examine these changing trends and you see a dynamic economy at work.

Housing and highways were the segments that got big doses of federal money to beat off recession. Now, as these special effects wear off and as money gets tighter, such work is beginning to shrink.

Spending by private business got no such anti-recession shot in the arm. **It had to wait on an upturn in demand** to justify outlays. Now new highs in production and retail sales are providing the incentive.

Commercial building—especially shopping centers—is really booming.

This type of activity had its recession early, turning down in the summer of 1956. **But retail sales had no such slump.** In fact, food in particular and softgoods generally set new records in 1958.

The upturn in commercial building last year pretty well offset the decline in industrial construction (and the two will be acting together to spur business for some time into the future).

The present climb in commercial construction owes much to new shopping centers and supermarkets going up across the country.

Capital spending in the distribution field lacks the glamor of plant and equipment expenditures of industry. Most economists, therefore, have tended to neglect this type of spending in their forecasting.

But Commerce Dept. estimates for construction volume in "stores, restaurants, and garages" rose throughout 1958 and is up 26% this year.

Ask any big retailer and he will tell you **90% or more of all new stores are now going into shopping centers.**

When **money eased** in 1957, plans for shopping centers were dusted off in all parts of the country. All a shopping center promoter needed was a list of **retail tenants** strong enough to convince a bank or insurance company that it was a **good mortgage investment.**

Prospective tenants were there aplenty. **Good retail trade** in spite of the recession was part of it. **A new boom in housing** did the rest.

Here are key figures on the outlook for private business building:

- Contract awards for new **stores**—the trend to supermarkets and shopping centers—are 32% ahead of 1958, the F. W. Dodge Corp. reports.
- **Factory** lettings so far this year are up 45% with the margin widening steadily; the latest report by McGraw-Hill's Engineering News-Record shows that July posted a year-to-year gain of 103%.

—•—

Watch the volume of new orders booked by manufacturers of durable goods over the next few months.

These factories booked more than $46-billion worth of business in the second quarter this year. That was a record by a good margin.

Nobody has been able to take quite at face value the steep rise in new orders since recovery began. Why shouldn't they zoom?

1. It had been a **hardgoods recession** in large measure; main recovery had to come in the same area, didn't it?

2. **Restocking of inventory,** particularly in recent months with a steel strike looming, was bound to boom orders for durables, wasn't it?

Some attention has to be paid to such doubts. Now, however, we are **testing the extent to which unnatural demand padded the figures.**

Manufacturers have been shipping durable goods out almost as fast as the orders were coming in.

The value of their shipments, in the 14 months since the recession's end, has risen by $4.3-billion, or 37%. In the like period after the 1954 recession bottomed, the gain was only $3.4-billion or 33%.

So close have factories kept to the order book, in fact, that **the backlog still is $17½-billion under 1956's peak** after a $3-billion rise.

The unusually sharp rise in the rate of production and shipments has tended to **minimize the growth in inventories. Actually, in relation to sales, stocks are the smallest in a long while.**

The inventory-sales ratio pushed above 2-to-1 early in 1956 and got above 2½-to-1 at its worst early in 1958. By the first quarter this year—even though stocks were abuilding—**the ratio once again was getting down almost to a 2-to-1 level; in the second quarter, it fell to 1.93-to-1.**

Here's one with fun built in . . . the Impala Convertible.

Almost sure to strike your fancy

(unless you like to pay fancy prices)

Fact is even the "price-is-no-object" people see no point in paying more. This new Chevy's got just about everything anyone could want in a car — looks, room, ride, an unmistakable feel of luxury. Yet it's a Chevy right to the core — with the kind of economy, dependability and eager response that have always been Chevrolet's stock in trade.

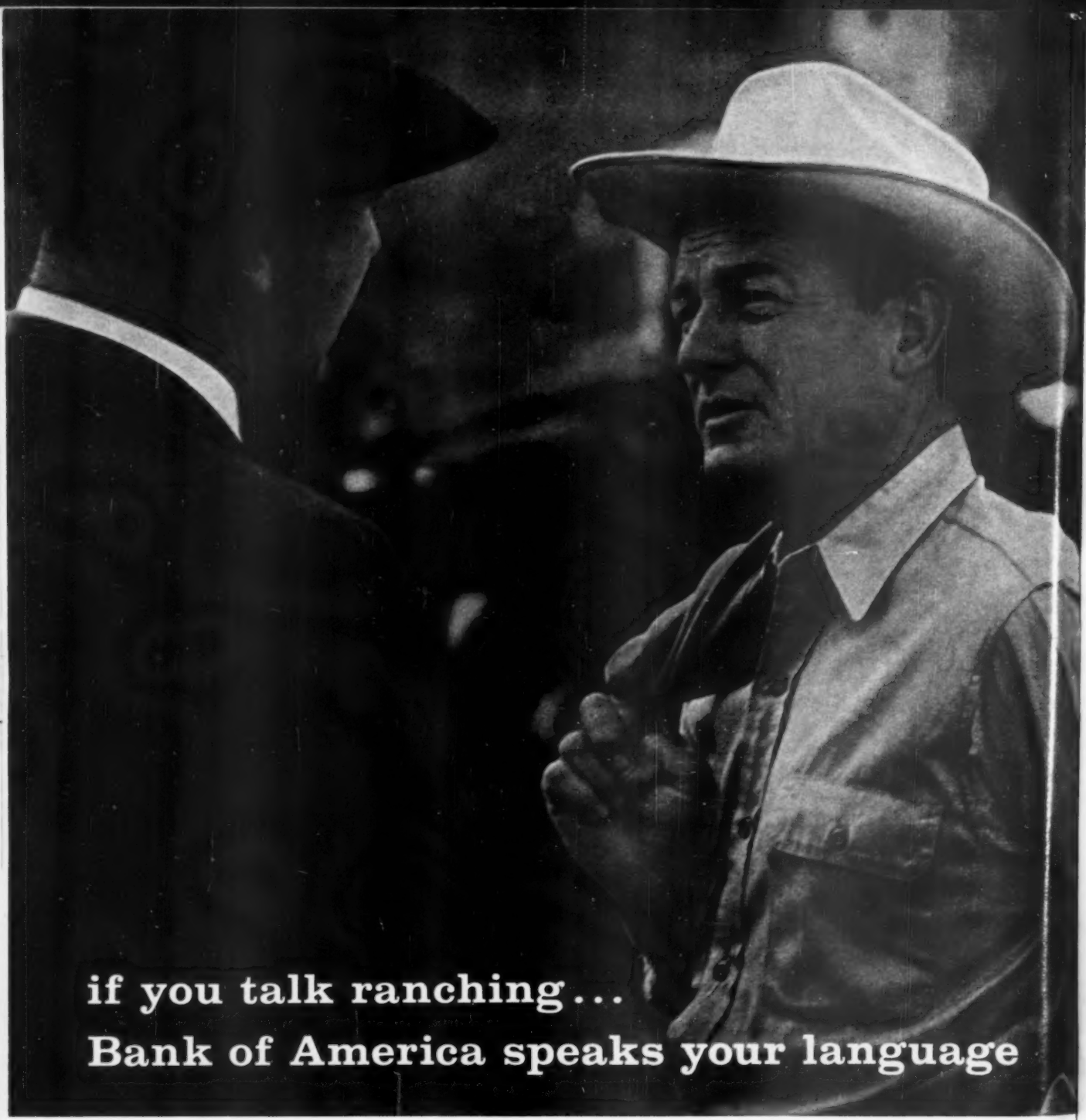
Your Chevrolet dealer will be happy to show you these special Chevrolet advantages:

Slimline design—style that's fresh, fine and fashionable.
Roomier Body by Fisher—new in everything but its famous soundness.
Magic-Mirror finish—shines without waxing for up to three years.
Sweeping windshield—and bigger windows—all of Safety *Plate* Glass.
New, bigger brakes with better cooling for safer stopping.
Hi-Thrift 6—up to 10% more miles per gallon and finer performance.

Chevrolet Division of General Motors, Detroit 2, Mich.

CHEVROLET

The car that's wanted for all its worth!



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BUSINESS WEEK

August 8, 1959

Number 1562

How U. S. Companies Plan to Invest Abroad

Foreign Capital Expenditures by American Companies

Millions of Dollars

INDUSTRY	ACTUAL 1957	ACTUAL 1958	PLANNED 1959	% Change 1958-59	PLANNED 1960
Primary Metals*	$155.2	$127.7	$132.6	+ 4%	$96.2
Machinery (Incl. Electrical)	181.0	176.0	208.2	+18	251.1
Transportation Equip. (Incl. Autos)	218.6	109.3	209.9	+92	186.8
Other Metalworking	30.3	21.5	33.3	+55	26.3
Chemicals	147.5	178.5	203.5	+14	175.0
Paper	60.5	29.6	39.1	+32	25.0
Rubber	61.5	51.0	69.4	+36	67.3
Stone, Clay & Glass	22.1	25.0	18.2	−27	12.0
Food & Beverages	39.3	34.2	31.5	− 8	37.2
Misc. Manufacturing (Incl. Textiles)	13.4	8.8	11.4	+29	11.4
ALL MANUFACTURING	929.4	761.6	957.1	+26	888.3
Petroleum	1,575.1	1,275.8	1,186.5	− 7	1,245.8
Manufacturing & Petroleum	2,504.5	2,037.4	2,143.6	+ 5	2,134.1

* Includes some mining companies

NOTE: Dollar figures reflect only expenditures of cooperating companies. These companies account for approximately ¾ of annual overseas expenditures of all U.S. manufacturing and petroleum companies.

Data: McGraw-Hill Dept. of Economics.

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The Migration Picks Up Speed

If there was any doubt that U. S. business is lustily expanding its overseas operations, the figures are now at hand to prove just how broad this move is and how fast it is proceeding.

A new and comprehensive survey by the McGraw-Hill Economics Dept.—the first of its sort—reveals the details of an over-all trend that has been taking shape with increasing speed (BW Special Report—Jan.3'59,p28). With the end of the recession, corporations launched a new wave of investment abroad. And, in keeping with a pattern that has been taking more and more definite form in the last decade, this spending has increasingly been for production facilities in foreign lands.

Instead of depending on goods exported from factories at home for foreign sales, the way they used to do, more and more U. S. companies are turning out their goods in plants spotted all around the globe—sometimes on their own, sometimes in joint ventures with foreign concerns. Sales from these overseas operations—estimated at $30-billion last year—have been growing far faster than export sales of non-military items. At least 3,000 U. S. companies had, at a conservative estimate, invested something like $28-billion in foreign production and distribution as of the end of last year.

• **Why Migrate?**—The reasons vary for setting up shop on distant shores. There's the lure of cheaper labor, easier access to raw materials, and convenience to markets. Often there are tax advantages to foreign investments. And tariff barriers can sometimes be circumvented this way. Creation of Western Europe's Common Market, with its united tariff front against outsiders, has stimulated much new activity by U. S. business within the market boundaries.

All this has been evident in broad outline for some time. But until the

Capital Expenditures

Millions of Dollars

INDUSTRY	CANADA ACTUAL 1957	CANADA ACTUAL 1958	CANADA PLANNED 1959	CANADA PLANNED 1960	LATIN AMERICA ACTUAL 1957	LATIN AMERICA ACTUAL 1958	LATIN AMERICA PLANNED 1959	LATIN AMERICA PLANNED 1960
Primary Metals	$58.9	$38.3	$32.4	$22.5	$80.7	$75.3	$70.8	$32.4
Machinery (Incl. electrical)	35.1	29.8	28.4	30.5	21.5	20.7	28.3	31.4
Transportation Equip.	20.3	8.4	23.3	23.3	10.1	33.4	29.0	20.4
Other Metalworking	15.9	12.0	11.9	6.4	8.0	4.3	10.5	4.3
Chemicals	45.1	54.8	59.0	49.9	40.4	48.6	43.1	29.9
Paper	56.8	18.3	23.5	20.3	.8	9.0	11.3	2.5
Rubber	17.3	6.5	14.8	24.8	13.0	13.4	29.0	15.5
Stone, Clay & Glass	11.7	12.4	10.0	5.9	7.7	7.3	3.4	.2
Food & Beverages	10.7	9.7	12.2	14.4	3.1	2.8	4.0	4.6
Misc. Manufacturing (Incl. textiles)	6.2	4.0	4.6	5.6	3.7	1.4	1.9	1.6
ALL MANUFACTURING	278.0	194.2	220.1	203.6	189.0	216.2	231.3	142.8
Petroleum	367.0	297.3	318.0	255.4	908.8	477.1	412.9	498.3

Data: Dept. of Commerce.

new McGraw-Hill survey was completed, nobody could answer with any precision questions such as these:

- How much money will U.S. industry invest abroad in 1959? How much does it intend to invest in 1960?
- Which industries are investing most heavily?
- How much U.S. capital is going to various regions of the world?

To find the answers, McGraw-Hill's Economics Dept. followed the same strategy it uses for the annual survey of domestic capital spending. It questioned manufacturing and petroleum companies that together account for roughly 75% of all capital expenditures overseas by companies in their industries. In general, they were the larger outfits in their categories, but since such companies do almost all the spending abroad, this does not unbalance the findings. Replies to the questionnaire were received and evaluated during the past month.

In computing exports, the tally omitted agricultural products, military aid, and shipments for charitable purposes.

• **Adding It All Up**—The results offer substantial proof for the thesis that overseas operations are burgeoning. As the table on page 23 shows, U.S. industry is spending 5% more this year for new foreign facilities than it did in 1958. And it plans to lay out approximately the same amount next year.

At first glance, the figures show one peculiarity that needs explaining. This year's combined total of spending by manufacturing and petroleum industries is below the 1957 peak. However, this is because petroleum companies spent so generously on facilities in Latin America that year, when the Suez crisis threatened their Middle East supplies. Their foreign spending has declined since, but they are still putting more money into overseas investment this year—if you include oil refining and marketing—than all strictly manufacturing industries combined.

Manufacturing companies by themselves are probably setting a record this year for overseas capital spending—with plans to empty their purses of $957-million. This is 26% better than last year, and it also exceeds the figure reported for 1957. Present plans of manufacturing concerns for 1960, possibly subject to considerable revision, indicate a drop back to $888-million in foreign spending.

In the manufacturing category, three industries are far out in front of their brethren in foreign activity—transportation equipment (mostly autos), machinery (including electrical), and chemicals. These three sectors of the economy will be responsible for 65% of the manufacturing investment planned this year.

• **Eastward Ho**—None of this is particularly surprising, but the regional breakdown of spending is (table, above). This shows that in 1960 U.S. manufacturing companies cooperating with the survey expect to be doing 47% of their foreign capital spending in Western Europe—in the 18 nations belonging to the Organization for European Economic Cooperation. This is more than the figure for Canada and Latin America combined.

Both in 1957 and 1958, by contrast, less than 40% of total manufacturing investment went to Europe; more than 50% was plowed into Canada and Latin America. The petroleum companies will continue to invest 60% of their total foreign outlay in the Western Hemisphere.

• **Jingling Registers**—The survey did not obtain dollar figures on sales anticipated from foreign branches, subsidiaries, and affiliates. But the manufacturing companies were decidedly bullish about sales from this source: They expect a 7% climb this year and a 9% surge

Companies Look to Europe

Capital Expenditures

Millions of Dollars

INDUSTRY	EUROPE ACTUAL 1957	EUROPE ACTUAL 1958	EUROPE PLANNED 1959	EUROPE PLANNED 1960	OTHER ACTUAL 1957	OTHER ACTUAL 1958	OTHER PLANNED 1959	OTHER PLANNED 1960
Primary Metals	$3.2	$1.9	$13.8	$24.7	$12.4	$12.2	$15.6	$16.6
Machinery (Incl. electrical)	94.9	99.6	127.5	166.0	29.5	25.9	24.0	23.2
Transportation Eq. (Incl. Autos)	170.5	52.3	116.5	122.7	17.7	15.2	41.1	20.4
Other Metalworking	6.3	4.8	10.1	14.3	.1	.4	.8	1.3
Chemicals	40.9	38.2	69.6	57.1	21.1	36.9	31.8	38.1
Paper	2.8	2.2	2.8	1.2	.1	.1	1.5	1.0
Rubber	12.8	12.9	10.8	10.6	18.4	18.2	14.8	16.4
Stone, Clay & Glass	1.6	4.1	1.3	1.4	1.1	1.2	3.5	4.5
Food & Beverages	21.1	19.0	13.2	15.8	4.4	2.7	2.1	2.4
Misc. Manufacturing	3.5	2.8	4.9	4.1	*	.6	*	.1
ALL MANUFACTURING	357.6	237.8	370.5	417.9	104.8	113.4	135.2	124.0
Petroleum	239.4	384.0	344.1	433.5	59.9	117.4	111.5	58.6

* Less than $50,000

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next. For export sales, by comparison, U.S. industry as a whole looks for much more modest increases—only 1% this year and 4% in 1960 (table, right).

Figures in this table, incidentally, represent total exports of all manufacturing and petroleum companies, not just of those companies cooperating in the survey.

These figures tend to support the predictions of some U.S. executives. They have been saying sales from overseas operations would double in the next 10 years while exports fattened less than half as fast. Exports are already behind: The closest approach so far to a precise current estimate shows total sales of foreign-produced goods at an estimated $30-billion for 1958, against just a little more than $16-billion for commercial exports.

• **Widening Gap**—The advantage of overseas production over exports—either in costs, tariffs, or transportation—is one reason for the accelerating trend to foreign operations. A plant on the spot often seems the best way to tap a growing market abroad.

Almost every company that has gone heavily into overseas operations figures that sales from its foreign output will increase faster than exports from its plants at home. For example, when American Cyanamid Co. announced a $13-million overseas expansion program for 1959-60, officials prophesied that by 1963 some 60% of its foreign sales would be from overseas plants, against about 40% today.

Export Sales

Commercial Export Sales—Manufactured Goods

	1958* MILLIONS OF DOLLARS	1958-1959 PERCENT CHANGE	1959 MILLIONS OF DOLLARS	1959-1960 PERCENT CHANGE	1960 MILLIONS OF DOLLARS
Primary Metals	$908.0	− 6	$853.5	− 4	$819.4
Machinery	2,867.0	+ 3	2,953.0	+ 3	3,041.6
Electrical Mach.	794.2	0	794.2	+ 9	865.7
Autos & Transp. Eq.	1,599.7	− 9	1,455.7	+10	1,601.3
Other Metalworking	683.4	+11	758.6	+ 7	811.7
Chemicals	1,476.2	+ 4	1,535.2	+ 1	1,550.6
Paper	303.6	− 2	297.5	+ 7	318.3
Rubber	278.3	− 5	264.4	0	264.4
Stone, Clay & Glass	295.4	− 4	283.6	+ 2	289.3
Petroleum	461.8	− 3	447.9	+ 1	452.4
Food & Bev.	811.9	+ 6	860.6	+ 9	938.1
Misc. Manufacturing (Incl. textiles)	1,404.7	+ 4	1,460.9	+ 2	1,490.1
TOTAL MANUFACTURING	11,854.2	+ 1	11,963.1	+ 4	12,442.9

*Data: Dept. of Commerce.

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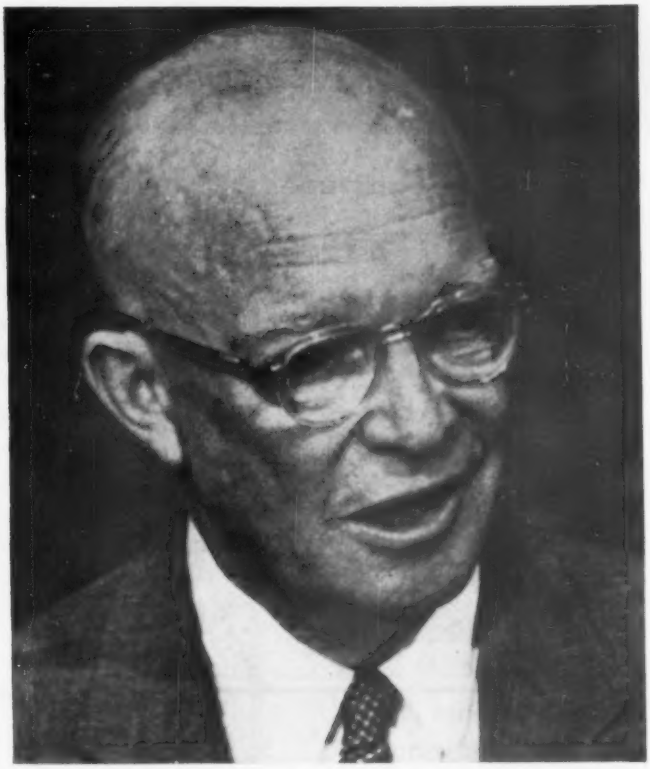
KHRUSHCHEV may want a truce to enable Soviets to concentrate on economic and political competition.



EISENHOWER hopes for progress on Berlin, nuclear test ban, and disarmament issues that have been dividing two sides.

What the Talks Could Do

Eisenhower hopes that his exchange of visits with the Soviet Premier will take the nightmarish quality out of the cold war, clear the way for competition without terror. It's a gamble, but he thinks there's a chance to win.

Pres. Eisenhower has embarked on his boldest and most dramatic gamble since the day he launched the wartime invasion of Europe. His decision to invite Soviet Premier Khrushchev to this country and to visit Russia himself commits him to a position squarely at the center of world affairs for months to come, probably for the rest of his term.

Immediately ahead lies an elaborate and strenuous series of conferences. This month he will cross the Atlantic to talk to Western Europe's top leaders about the pending Khrushchev visit. Khrushchev comes here in September. Sometime soon after that, Eisenhower will go to Russia. And the chances are that after that, Eisenhower will have to take on a Big Four summit conference, to pick up the unfinished business of the Geneva foreign ministers' meeting that faded into nothing this week.

• **Chance for Progress**—The one overriding purpose of all this is to make the most of the chance the President sees to get the fated, nightmarish aspect out of Soviet-American relations at last. He thinks he can bring about a more "normal," more realistic relationship in which ordinary arms-length bargaining can bring some progress on such issues as Western rights in Berlin, a ban on nuclear tests, and beyond that perhaps at least a beginning on disarmament.

Eisenhower is gambling that Khrushchev's reasons for getting out of the nightmare are just as compelling as his. He may be wrong; Khrushchev may want no more than the prestige he can gain in world affairs by forcing the U. S. into direct talks, by finally meeting Eisenhower on a basis of equality. He may be using the Berlin crisis for no more than that.

• **U. S. Gains**—But Eisenhower clearly has decided it's worth giving that much political advantage to the Soviet leader just to continue the improved tone already contributed by the exchange of national exhibits and the reciprocal visits of Deputy Premier Kozlov and Vice-Pres. Nixon. Besides, there's the chance of a standstill arrangement on Berlin and a controlled ban on nuclear tests.

However, Eisenhower won't be satisfied with gains as limited as these. He undoubtedly hopes to explore with Khrushchev the whole disarmament problem, including a system to prevent surprise attacks and a stop to production of nuclear bombs and warheads. The Soviets seem prepared now to discuss arms control on the broad political level of the 1957 London disarmament talks, rather than on the technical level of the Geneva discussions on a test ban.

• **Trade Talks**—Any progress in these areas would lead Eisenhower to listen seriously to the bid Khrushchev is certain to make for more U. S.-Soviet trade. There's a strong feeling in New York financial circles and in West European capitals—though not among Washington officials—that any real improvement in U. S.-Soviet relations is bound to entail the gradual "normalization" of trade (page 89).

Khrushchev pressed Nixon repeatedly on this point when he was in Moscow.

The real question is whether Khrush-

chev is willing, by concessions in other areas, to pay for a lifting of the restrictions Washington now imposes on exports to the Soviet Union. What Khrushchev wants, in order to speed his Seven-Year Plan, are chemical plants and processes, plus products such as 28-in. steel oil pipelines.

From Washington's angle, there are several problems, beyond getting Congress to loosen up on the ban on commercial credit to the Soviets and to ease discrimination against Soviet export items. Most important is deciding whether the U.S. wants to strengthen the Soviet economy. There's also the fact that Soviet equipment orders, assuming they could be filled, probably would dry up in three or four years at most.

• **Sweet and Sour**—The outcome on trade and most other subjects raised in the Eisenhower-Khrushchev exchange will depend primarily on what Khrushchev is shooting for. And nobody in the West can be sure of that. There's plenty of speculation, though, by Western diplomats and unofficial observers.

The pessimists, both here and abroad, see no good coming from the whole business. According to this school, Khrushchev launched the Berlin crisis mainly to get the U.S. into direct talks, at which he figures he can force Eisenhower into a humiliating retreat on Berlin. The U.S., say these observers, is paying the price for letting the U.S.S.R. catch up in military power. Now that our power position has weakened, we don't stand a chance in an exposed spot such as West Berlin.

• **An "Unthinkable" War**—However, many Western diplomats hold a sharply contrasting view. They feel that Khrushchev wants to back away from the Berlin crisis, which has become hotter than he expected. This group feels that the Berlin situation is leading Khrushchev around to Eisenhower's conviction that war today is "unthinkable."

If that's the case, so this argument goes, the contest has to shift to an economic and political battleground, where the relative Soviet weakness is still obvious. To match the West on this ground, Khrushchev needs a real thaw in the cold war. Then he could strengthen his economic and political position—by devoting more Soviet resources to consumption and by tapping technical and scientific knowhow from the West, especially the U.S.

Some observers also argue that Khrushchev can't help but worry—as the U.S. does—about the spread of nuclear weapons to fourth, fifth, and sixth nations. Once this happens, some smaller nation could start a war that neither Moscow nor Washington could control. To avoid this danger, Khrushchev needs a binding arms control agreement with the U.S. He could count on British acquiescence and on cooperation with the U.S. in getting France and Red China to go along.

• **Freer Air**—Regardless of whether or not Khrushchev is swayed by such calculations, he can't very well go back to the worst cold war tactics without sacrificing his political position inside the U.S.S.R. He has already given the Russian people a taste of intellectual freedom, better living standards, and contacts with the West. They will demand more, and Khrushchev can't buck the demand—except temporarily—and stay in politics.

Of course, Khrushchev already has paid something in advance for the chance to come to the U.S.—just by permitting the Nixon visit and the American exhibition in Moscow. He'll pay still more by letting Eisenhower talk to the Russian people personally.

Whatever else can be said about the Eisenhower-Khrushchev exchange, there's no doubt that it opens a new chapter in U.S.-Soviet relations—one that will take some time to unfold. There's always a chance it could end with the same old bitter relationship that has prevailed ever since the end of World War II. But it seems more likely that it will produce some new and less dangerous ground rules for the East-West contest. By fits and starts, it might even lead the world to a point where economic and political competition would count for more than military jockeying between Communism and Capitalism.

Just What Eisenhower Asked

Appropriations for defense in fiscal 1960 hew close to the budget line, despite earlier Democratic claims that the program needed expansion in many directions.

When Pres. Eisenhower's new defense spending plans went to Congress in January, the victory-charged Democratic leaders promised to add plenty to the $39.2-billion request for spending authority. Eisenhower was asking $700-million less than the previous year's defense appropriation; Democrats said we needed to expand in many directions to match the Soviet effort.

This week, the military appropriation came out of the Congressional wringer in final shape with the total virtually unchanged. Action is still pending on an additional $1.6-billion in the separate military construction bill. And appropriations for the defense-related Atomic Energy Commission and National Aeronautics & Space Administration were still in conference this week.

The lawmakers did make some overhauls in major defense programs. Production of ICBMs was jacked up $172-million over the Air Force's request. The Army got a $238-million bonus for procurement—tactical missiles, light planes, tanks, guns, and the like—up almost 25%.

In addition, the Army's $300-million research and development budget for the Nike Zeus anti-ICBM missile was hiked by $137-million.

The Navy received an extra $137-million for anti-submarine defenses—earmarked for a new nuclear-powered "killer" submarine, the Goodyear-Thiokol Subroc underwater missile, electronics apparatus, and other items.

Finally, Congress voted its traditional increases in force levels for the Marine Corps, the Army Reserves, and the Army National Guard.

• **Where Congress Trimmed**—Offsetting the increases were cutbacks that brought the total budget to about $20-million below the original request:

• Procurement funds for the Air Force's Bomarc and the ground-to-ground missile, Mace, and for the Army's Nike Hercules missiles were slashed.

• The Navy was given only the $35-million to buy the reactor and to begin production of other long lead-time items for a second nuclear-powered aircraft carrier, in place of the proposed $260-million conventionally powered vessel.

• $50-million for Air Force ground radar replacement was knocked out.

• Operations and maintenance budgets were trimmed.

The Congressional changes in individual programs followed no specific pattern. The Pentagon's fundamental strategy emphasizing preparedness for general war through nuclear deterrence was endorsed. But at the same time the buildup of tactical forces for limited warfare was speeded.

Of course, the Pentagon's buying plans for the next 11 months are still not firmed up; Congressional appropriation is not the last word on how military funds are to be spent.

Still to come is the Pentagon's "apportionment," conducted jointly with the Budget Bureau, where individual projects are reviewed once more before contracting officers are authorized to commit the fiscal 1960 money.

• **Double Check**—Congress last week passed a bill to strengthen its hand in military policymaking by requiring the

Armed Services Committees of both houses to O.K. an "authorization" bill on missile and aircraft procurement in addition to the money bills voted by the two appropriations committees. This sort of double Congressional check is routine on foreign aid and military construction.

The measure will mean that on long-range planning for production, missile and aircraft contractors and their subs will have one more bureaucratic hurdle to clear before drawing Pentagon funds.

• **On a Plateau**—The appropriations will mean an earlier leveling-off of Pentagon outlays than had been anticipated. The current forecast is for actual spending of $41-billion in fiscal 1960, duplicating fiscal 1959; the Administration has ordered the Pentagon to plan its 1961 budget at the same rate.

Behind the latest economy push is the Eisenhower Administration's determination to mark its last year in office with a respectable budget surplus. The result of the order will be cuts or cancellations in several major projects to develop new hardware.

For as major development projects shape up now, increased military spending next year appears inevitable. Projects such as the Air Force's B-70, F-108, and Dyna-Soar orbital bomber have reached the crucial stage where massive hikes in funds are required.

To hold to $41-billion in fiscal 1961, the Defense Dept. will be unable to bring such projects along as rapidly as proposed, and at the same time maintain production of the Atlas, Titan, and Polaris missiles, and other costly arms at rates now scheduled for next year.

• **Chop and Restore**—As for the AEC and NASA appropriations, Congress so far has treated them alike, with the House making minor cuts, and the Senate restoring practically all the reduced funds.

The Administration asked for $2.7-billion for AEC. The House knocked out $5.8-million earmarked for physical research, the atomic plane, Euratom, reactor development, and assorted projects. The Senate's bill restored all but $7-million.

NASA asked for $485.2-million. The House cut $23.8-million for research, construction, and overhead expenses. The Senate bill puts back the reduced funds. If the agency doesn't get all it requested, it would mean a slowdown on such programs as communication and weather satellites, man-in-space, and the development of the powerful thrust engines that are the key to long-range plans such as orbiting satellite stations and return trips to the moon.

NASA's budget is just a beginning on on what the nation will be spending on its space program in the years ahead. Next year, NASA is expected to ask for about $1-billion.

Warehouses Hold

HEAPED INVENTORIES held by steel service centers can keep U.S. factories running for a long time despite the strike. Here's Jones & Laughlin's Detroit warehouse. The warehousemen will allocate their steel supplies on the basis of past buying patterns.

Trump Card in Steel Settlement

Steel service centers, with huge and choice inventories, have supplies to keep industry in general running deep into September, despite the strike that has crippled production.

Next week, American businessmen—particularly manufacturers—will start becoming truly aware of the steel warehouseman. For by then, these 600-odd small businessmen, who operate about 1,200 industrial steel service centers, will possess about 3.3-million tons of disposable steel products—the one truly substantial liquid supply in an economy that will be about ready to take the steel strike seriously.

That inventory in being—covering everything from sheet piling to tees and zees, by way of sheets, bars, plates, structurals, and every steel product you ever heard of, plus quite a few you haven't—makes the steel warehouseman about the most strategic businessman in the economy today. Here's why:

- He can continue routine shipments to the startling list of U.S. industries—including most of the biggest—that buy steel routinely from "steel service centers," as the warehousemen like to be called.
- He can piece out imbalances in the stocks of manufacturers otherwise nicely supplied with steel for a month or more to come.
- He can probably accommodate emergency shortages that might halt the most critical construction projects—the kind that simply must not be stopped if they can possibly be kept going.
- In the unlikely event it became necessary, he could back up such national defense steel shortages as couldn't be supplied by those mills that are still operating.

The American steel warehouseman can do all this after 25 days of strike, because he went into the shutdown with at least 3.7-million tons of steel. That's 1-million tons more than he took into the 35-day 1956 strike. It leaves the warehouses at least as well inventoried as the most strategic manufacturers.

• **Washington Reaction**—Not entirely by accident, the strategic impact of these high-stacked steel service centers may be pronounced in Washington. Figure that one this way: If the strike is to be settled before, say, the end of August, it will be settled by the Administration. If the Administration is to settle it before then without deserting a fairly well-defined neutrality and without imperiling its anti-inflation crusade, it will have to turn up a national emergency—defense or otherwise.

But on Aug. 31, after six weeks of strike, steel service centers will still have 2.6-million tons of steel. That's as much as they carried into the strike three years ago. And it's rather close to the stocks they carried into 1955, 1956, and 1957—each of them a record year in the U.S. economy.

• **Poor Precedent**—A little surprisingly, the 3.7-million tons on hand last July 1 were only slightly larger than the warehouse inventories one year earlier—which totaled 3.6-million tons. Inventories then, though, were poorly balanced, unlike the high-quality stocks available this year. And they were that high in mid-1958 only because it was such a miserable steel year.

The 2.6-million tons available Aug. 31 will represent about eight days' all-out production by the whole industry. With better than a dozen mills still operating—many of them specialists in the steels most strategic to national defense—it will be plain, Aug. 31, that the steel-based portion of the U.S. economy won't yet have reached the brink.

• **Expert's-Eye View**—The numbers that bear this out come from the man whose job it is to know the situation best. That would be Robert G. Welch, executive vice-president and secretary of the American Steel Warehouse Assn. Here's the picture, as Welch sees it:

Entering the strike July 15 with 3.7-million tons, steel service centers saw their business sag a little from the brisk levels of May and June. Net withdrawals in the first two weeks of the strike were perhaps 100,000 tons.

Late in July, with 3.6-million tons on hand, business bounced back. From late July on out, steel service center stocks will be drawn down by 150,000 to 200,000 tons per week net after receipts from operating mills and some foreign steel. Even at the maximum rate, there should be no warehouse problems through at least the first three weeks of August, except possibly on galvanized sheets in a few locations.

• **Imbalances**—Thereafter, some warehousemen will be shopping around, occasionally, to supply every last item of an order. They'll be feeling a few imbalances themselves—although not many, and nothing that can't be filled by calling other steel service centers in their own cities.

By Sept. 1, spot shortages among warehousemen will be nationwide—not just here and there. Warehousers will be filling them by shopping in other cities. By Labor Day, there will be spot shortages all over—geographically and by product.

By Sept. 15, warehousers will have problems. Their holdings then will be about 2-million tons. When they get that low, the normal warehouse pattern—which is fast delivery of exactly what you order—will be out of phase. Particularly pressing then will be shortages of flat-rolled steel products, primarily sheet and strip. That follows for two reasons:

- Such tonnage is the most widely used single category of steel products. Hence warehousers were able to stock it less fully during the hectic months of inventory building from February through June.
- Demand for it during the strike will be heavier than for any other steel product.

• **Allocations**—You might think that Welch's timetable will prove ephemeral—that steel users of every description will pluck the warehouses bare by mid-August. If you thought so, you couldn't be more wrong.

That withdrawal rate won't snowball simply because the warehousers won't let it snowball. Just as the mills do when the order rate soars past capacity under the impact of scare buying, the warehouses will allocate their tonnage. The effective way to do that is to assess orders against past buying patterns. That not only protects established customers. It also makes available part of the unusually heavy inventory of July 15 for the man who has no particular entree to the warehouse, but who has a genuine requirement for steel.

Welch does not think a prolonged steel strike will be an opportunity for the warehouseman to add significantly to his customer list. "We already serve every steel buyer in the country, one way or another, one time or another," he says. "They can't live without us. What a strike does is let us build better customers. Steel users get a chance to see how much business they should be doing with us regularly—which for most steel users is more than they think."

• **Structural Steel**—One customer of the warehouses, the structural steel fabricators, reported that it generally had enough shapes on hand to keep the construction industry supplied for at least three months. A survey by the American Institute of Steel Construction found that eight out of 10 fabricators said they could maintain high-level shipments for three months or more, while some said they could run up to six months.

Elevated

Now that jets are drastically reducing the time it takes a traveler to get from one point of the globe to another, the airlines are turning their attention toward getting him on and off the plane with the same sort of speed and convenience.

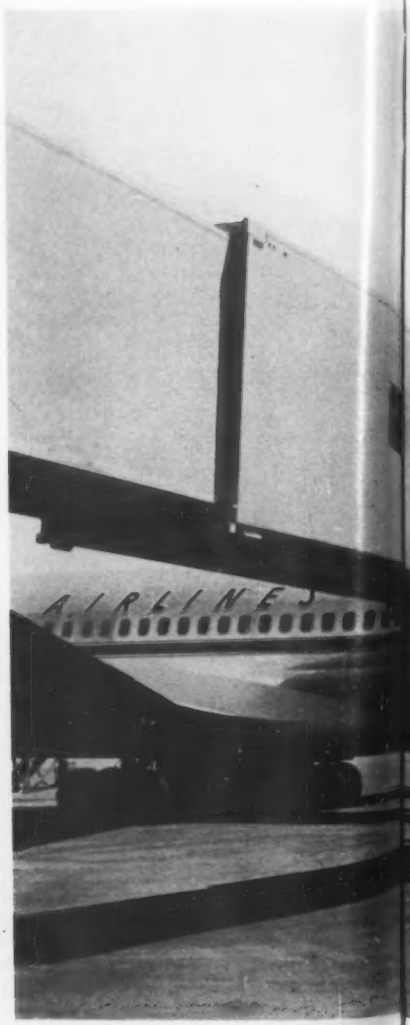
With this in mind, American Airlines last week put into operation a completely new system for loading and unloading passengers from jets at San Francisco's International Airport (pictures). Passengers for the line's Boeing 707 flights step from the air terminal into second-story-level boarding walkways and directly onto the plane without ever touching their feet on the airfield.

Aside from the convenience for passengers, the new equipment makes it possible to get all 112 passengers on or off the plane in about 3 minutes. With two conventional boarding ramps, this would take 4-5 minutes. This time

1 American Airlines jet approaches fixed passageways that jut out from air terminal.

2 Pilot brings plane's forward door close to movable walk connected to passageway.

3 Front walkway is moved up to plane and firmly positioned against fuselage.



4 Rear walkway snakes out to provide an exit from the rear door.

Walkways Speed Jet Loading

saving, slight though it seems, is important at airports with heavy traffic.

• **How It Works**—American Airlines' new loading facility consists of elevated passageways mounted on fixed piers from which movable walkways reach out to the airliner's doors.

First-class passengers board through the 707's forward door by means of a short monorail "jet airwalk." This walk was developed and built by Lockheed Terminals Corp. and cost $35,000.

Coach passengers board the plane through another type of walkway, a telescoping, swiveling "jetway," designed and built by Pacific Iron & Steel Corp. The jetway, constructed of honeycomb core material covered with steel sheets, weighs 28,000 lb. and extends from 52 ft. to a maximum 107 ft. It cost $65,000. The telescoping feature makes it possible to get the jetway out of the way of a plane nosing toward the terminal area.

The two walkways are operated by consoles inside their thresholds, which butt against the airliner's fuselage. A certain amount of right-and-left, and up-and-down adjustment is possible, although the plane has to be positioned fairly accurately to begin with. Electronic alignment sensors automatically keep the floor of the walkways even with the lip of the airliner door. The walkways can be run out into place against the plane before the passengers can get out of their seats after landing.

• **The Advantage**—The new loading system gives passengers the illusion that they are entering the plane almost from the interior of the terminal. The second-floor level of the passageways eliminates the stair-climbing imposed by the conventional ramps, always a problem for wheelchair travelers, and offers a shield against bad weather. The convenience of second-story loading is so great, in fact, that it probably will be a common feature of all jet boarding systems.

Complementing American's new loading operation is a speedier baggage handling system. American now preloads six large containers made of glass fiber and steel (each holding 1,400 lb. of baggage) at the terminal. After these are moved out to the plane, they are elevator-lifted into the plane's baggage compartments.

American is building a loading system similar to the one at San Francisco at New York's Idlewild Airport and plans another at the new jet terminal now under construction at Los Angeles.

• **United's Plans**—United Air Lines, whose jets begin flying this fall, also is busy planning new loading facilities for its passengers. Its second-story loading system, incorporating Pacific Iron & Steel jetways, will be built at airports in New York, Chicago, San Francisco, and Seattle.

BOARDING passengers move through second-story walkway without stepping on field. Inside plane, hostess greets them.

Stable Steel Prices in Sight

They are industry policy now, and the record first-half earnings show that they're within reach. One "if": no outside intervention to settle the strike.

For the first time since the war, it's possible to contemplate a stable price level for the nation's most useful industrial raw material—steel.

Whether or when that will be realized isn't yet clear. But what's firmly on the record today is this:

• Such a price policy is the goal of the steelmakers themselves.

• They have come to a point in earning power where they can talk about it out loud.

That's the significance of last week's spate of steel earnings statements. As expected, the earnings they recorded were lush. Predictably, since a strike was in progress and contract negotiations were utterly stalled, their size provoked a "you-did-we-didn't" sort of brawl between labor and management. Even so, if you ignore the tempest and study the numbers—and ponder what the steelmakers themselves said about them—it becomes plain that steel prices no longer are necessarily, or automatically, on the escalator.

• **The Big One**—As you might expect, the most formidable evidence came from the most formidable producer: United States Steel. Its chairman, Roger M. Blough, put firmly on the record a price policy that corporation insiders have talked about privately for months. It's this: If the strike settlement be a "voluntary" one, U. S. Steel won't raise prices. Blough committed the rest of the trade when he added:

". . . except in periods of extreme demand, every company in an industry such as steel must meet the lowest price of its competition, and that competition will thus deter other steel companies from seeking price relief."

Blough's statement, which he agreed was in the nature of a warning to the federal government not to dictate or influence the new contract terms, was regarded fairly widely as a bit of strike strategy. But it was more than that.

Since last March, responsible U. S. Steel executives have said steel prices would not be raised unless the new contract was too large to be swallowed. Last week, Blough made it even stronger. He said prices wouldn't go up "whatever the outcome of the negotiations" so long as it's a voluntary settlement.

• **High Return**—The corporation's second-quarter earnings statement puts muscle on that price policy. It showed earnings of $148-million—a 10.2% return on sales. That's a goal U. S. Steel has been shooting at for years—but hasn't accomplished since 1930.

Perhaps more significant was the fact that in the second quarter the corporation returned to the charging of "accelerated depreciation," a write-off greater than that allowable for tax purposes, hence a direct charge on earnings. In the second quarter, U. S. Steel tapped its owners $15.9-million for this purpose. That came on top of conventional depreciation which already had been raised. The result was a second-quarter wear and exhaustion charge-off of $82.8-million. On an annual rate basis, this would be distinctly the highest U. S. Steel has ever made, even when it was writing off on a five-year basis the facilities it built under national defense legislation.

Now it's true, of course, that normal inventory rebuilding and strike-hedging magnified second-quarter business out of all proportion. Even so, when any steel producer can earn 10% on sales after so heavy a depreciation charge and after making the maximum contribution to the funding of its past-service pension liability, it's plain that its earning power has regained levels unknown for at least 30 years. Such earning power is entirely capable of holding steel prices stable if the producer chooses.

• **Possible Cuts**—Further evidence may well pop up before yearend, this time in the form of price cuts. For a month, corporation insiders have speculated about the advantages of some limited price cutting after there's a new contract. They are not talking about lower prices for, say, tinplate and the cold-rolled sheets that go into cars and appliances. But they are talking about lower prices for merchant wire, standard pipe and structurals, reinforcing bars—the type of product with which European steelmakers have been flooding the U. S. for months (BW—Aug.1'59,p23).

This talk isn't confined to U. S. Steel. During 13 years of postwar boom and expansion, the eight largest steelmakers didn't earn so much as they invested. This year, they may do so.

It will happen, if it does, because since 1945, those companies invested $9.3-billion in plant during 13 years in which they earned $7.6-billion. That investment bought them great mechanical efficiency as well as 61% more capacity. That efficiency is producing 1959's earning power and promising the possibility of stable prices.

Steel's Record Quarter

Composite Income Statement, Top Eight Producers

	Second quarter 1959	% Change from 1958	Second quarter 1958
Total Revenues	$4,141,756,268	+ 68.7	$2,454,984,739
Depreciation*	$159,049,819	+ 30.3	$122,101,560
Federal Income Taxes*	$391,909,527	+150.5	$156,427,237
Net Income	$382,542,133	+130.3	$166,061,419
Earnings/Sales	8.83%	+ 53%	5.77%

*Excluding Youngstown Sheet & Tube.

Data: Quarterly Reports of the Eight Companies.

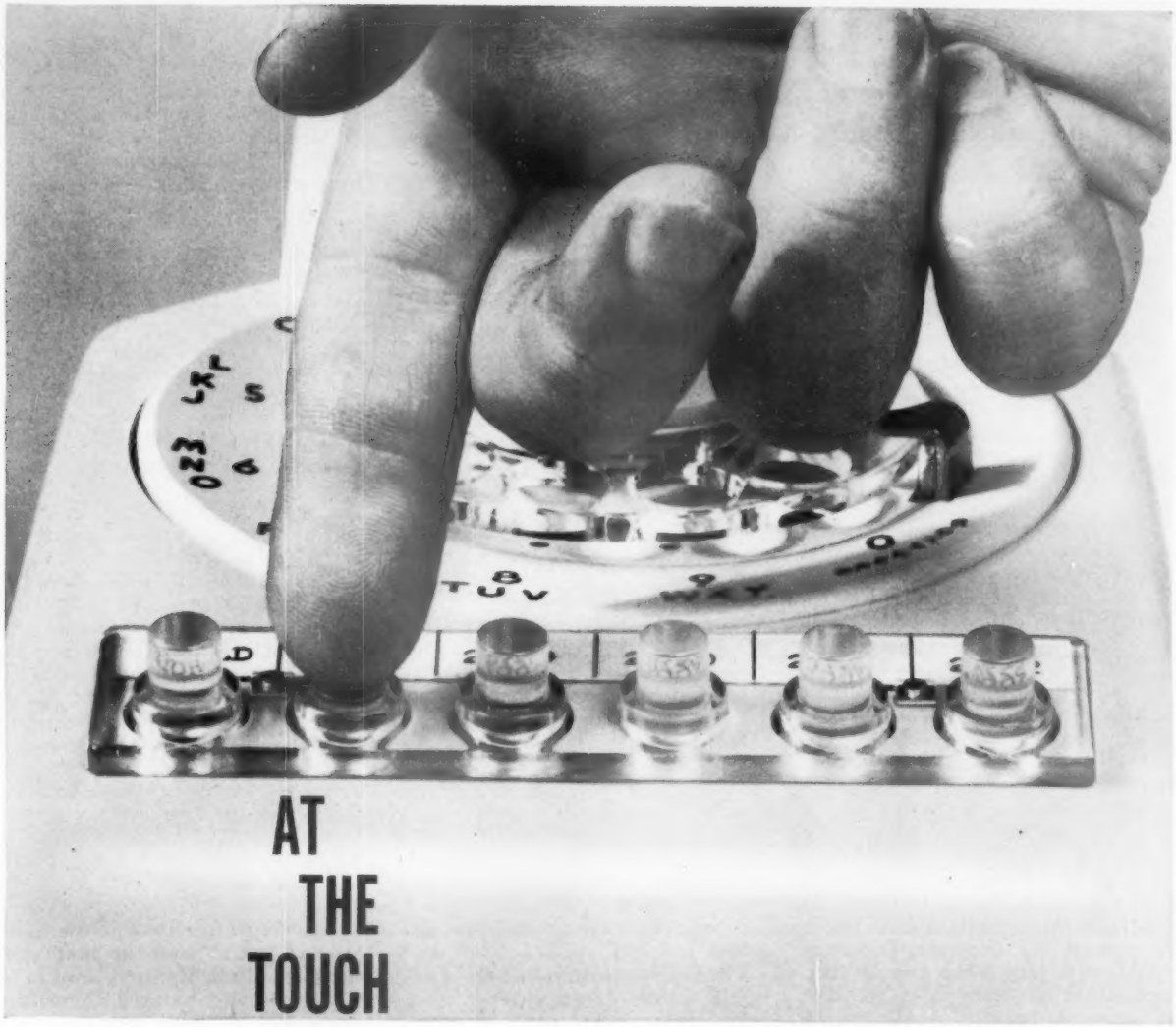
Parenthetically, the obverse of that mechanical-efficiency coin is what the strike is all about. Steelmakers took years to build efficiency in the work force comparable to that they've built into their equipment. They're convinced it will take some work-rule changes to get it. Steel believes the potential rewards are great enough to be worth the cost of a long and very expensive strike.

There's more evidence to support the prospect of stable steel prices. For example, Chmn. Arthur Homer, of second-largest Bethlehem Steel, publicly indicated the cost-cutting potential of revised work rules is great enough to accommodate both wage and fringe benefit boosts and price cuts.

• **"Real Improvement"**—Chmn. Charles M. White, of Republic Steel, as case-hardened as any steelmaker in his opposition to ever-higher employment costs, couldn't refrain from saying that ". . . there are evidences of real improvement in our performance . . . the direct result of the expenditure in recent years of three-quarters of a billion dollars in new and better plants and equipment."

Chmn. Avery C. Adams, of fourth-ranking Jones & Laughlin Steel, Pres. Thomas E. Millsop, of National Steel, Chmn. J. L. Mauthe, of sixth-ranking Youngstown, and Chmn. Charles R. Hook, of Armco Steel, joined White in attributing their own record earnings in part to heavy investment in new plant and equipment. Only one of the top eight companies earned less than 8% on sales in the second quarter; three of them earned more than 9%. In the first quarter, six of them earned more than 8%.

That kind of earning power is evidence that Blough wasn't just engaging in strike strategy when he said that steel's price line will be held if the settlement is a voluntary, industry-union affair. Now, U. S. Steel can hold the line and still be sure that it won't be crippling its competitors in doing so.



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BELL TELEPHONE SYSTEM

Truce in the Tight Money War

● The Administration and Congressional leaders seek to end eight-week deadlock over bill to lift interest rates on government bonds.

● Democrats are hitting at the Federal Reserve but hesitate to force the issue.

● Odds favor a compromise that will give the Administration more flexibility in handling the public debt.

Top strategists of Congress and the Administration—deadlocked for eight weeks in a quarrel over the related issues of tight money and debt management—are working toward a fresh start.

If they succeed, they will head off a showdown between the Democratic majority in Congress and the Administration over the whole issue of inflation control. The Democratic resistance to higher interest rates may still precipitate an open battle, but both sides are working to avoid it. Speaker Sam Rayburn is fathering the Democratic effort to reach an agreement. Treasury Secy. Robert B. Anderson is chief negotiator for the Administration.

• **Compromise**—At midweek, chances looked hopeful for a compromise that would give the Administration what it wants most—the right to go around the present statutory ceiling of 4½% on the interest it can pay on long-term bonds. As part of the deal, the Democrats would write into law a general statement about monetary policy and debt management, but they would give up the wording of the "sense of Congress" amendment that has caused the deadlock (BW—Jul.18'59,p27).

The Treasury is prepared, if necessary, to accept the two main conditions that the House Ways & Means Committee proposed when it approved a bill to lift the interest rate ceiling. One of these would require the President to declare that the national interest is involved whenever the 4¼% ceiling is to be broken. The other would limit the new authority to two years.

The real problem is to work out new language for the "sense of Congress" statement. And on this point, the key man is not Anderson but Chmn. William McC. Martin of the Federal Reserve Board. To Martin, the Democratic drive has been a direct assault on the independence of the Federal Reserve, and he has fought it tooth and nail.

If Congress had persisted in pushing the original bill, Martin probably would have resigned. In fact, if the new approach is beaten—and it may yet run into trouble—Martin may decide to leave anyway.

• **Fireworks**—The disputed section of the original Ways & Means bill states that the Federal Reserve System "should where feasible bring about needed future monetary expansion by purchasing U.S. securities of varying maturities."

This idea came from similar legislation that had been introduced two months before by Rep. Henry Reuss (D-Wis.). It was denounced by Martin as a move that would be interpreted at home and abroad as inflationary.

• **New Try**—The compromise is aimed at dropping the language that offends Martin. Instead, Congress would simply state in the broadest possible terms that debt management should be pursued with three goals in mind: high level employment, economic growth, and interest rates as low as practicable.

The key difference is that this would not be construed as a directive to the Federal Reserve but a bit of general advice to the Treasury. It would avoid recommending purchase of securities as the way to expand the money supply and thus would not mix in the techniques of credit management.

• **Under Fire**—The search for an acceptable substitute began last week while Martin was being subjected to the most gruelling attack of his career before a Congressional committee. He appeared before the Joint Economic Committee to testify briefly on the committee's broad study of prices, growth, and employment. Although he is an old hand at dealing with sniping congressmen, he spent three separate sessions defending himself and the Federal Reserve against attacks of Democrats.

Reuss was his chief tormentor. He got Martin to admit that in quantitative terms, there is no real difference between increasing reserves by lowering reserve requirements and increasing reserves by buying government securities. Martin argued that lowering reserves was more direct and swifter in action, and therefore preferable in a time when the board wants to ease credit.

Martin pointed out that the Reuss proposal if written into law would be interpreted as inflationary due to the "atmosphere in which we are operating."

• **Flank Attack**—Sen. Paul F. Douglas (D-Ill.) joined Reuss in ripping into Martin. Both attacked Martin's preference for lowering Reserve requirements as a device that enables the banks to make higher profits. Douglas at one point directed the committee staff to make a study of cases where Treasury financing decisions "exactly followed" recommendations of the American Banking Assn.

• **Long Fight**—Martin's troubles before the economic committee climax a year-long feud with critics in Congress—in many ways the most persistent and vigorous political attack on the Federal Reserve in the System's 46-year history. Several of his opponents declare that Martin's own stubbornness has been responsible. So far, however, the attacks have been sporadic and have lacked the backing of the Democratic Party's high command in Congress.

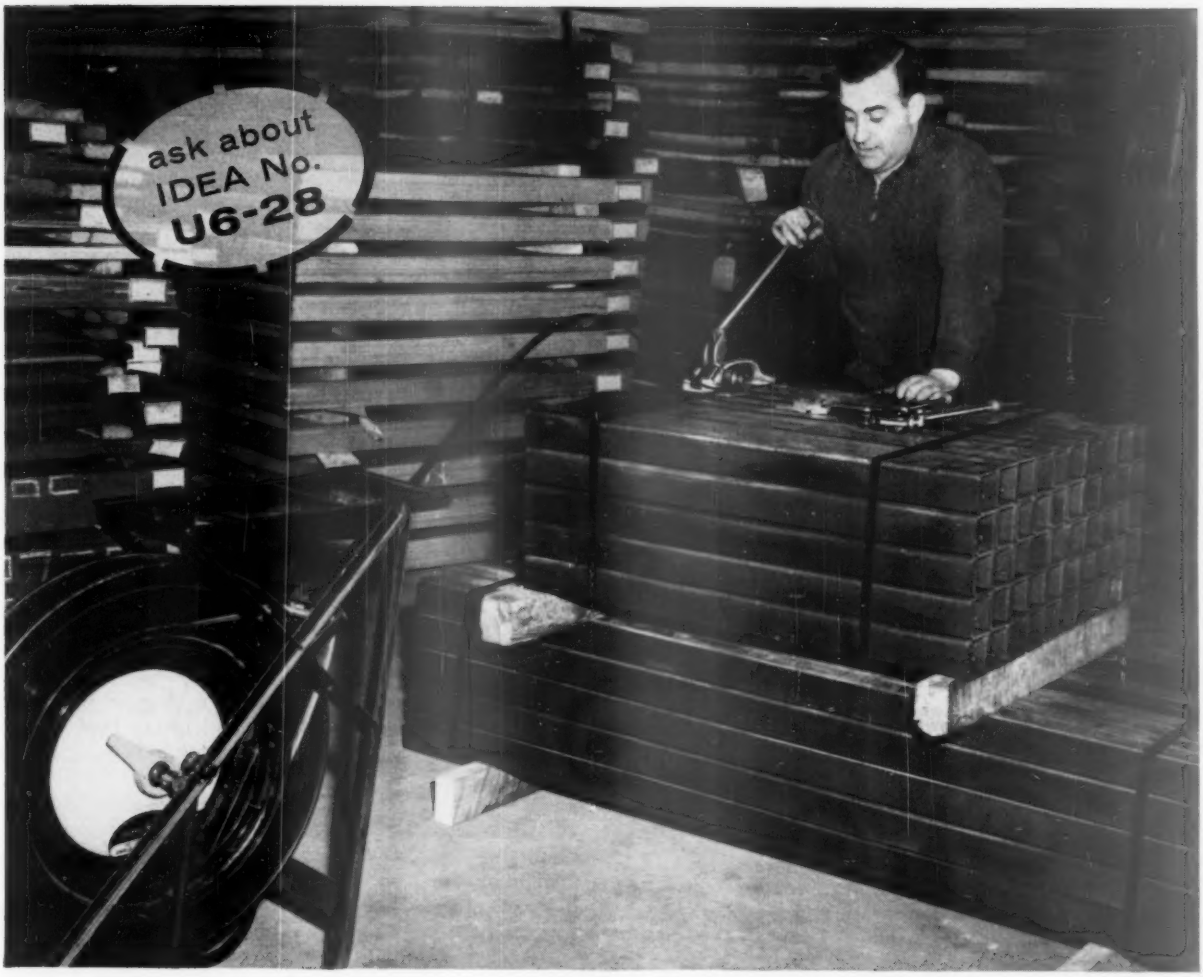
• **Political Standoff**—The reason is that the Democrats themselves are divided.

A group in Congress of the Douglas-Reuss type would like to challenge the Administration and the Federal Reserve head-on. They believe that high interest and rising bank profits would make a potent issue in next year's elections. Paul Butler, chairman of the Democratic National Committee, agrees, and so do key members of the Democratic Advisory Committee. But the leaders of the party in Congress continue to have reservations.

The political appeal of the inflation issue is not altogether with the Democrats—and the Democrats know it. The party leadership is anxious not to be caught on the wrong side when election day comes next year.

• **Soft Spot**—Martin struck with sound instinct at this weakness in the Democratic position when he gave his testimony. He carefully pointed out that while he opposed the Reuss proposal, he did not question the Constitutional right of Congress to act on the question. He did maintain that if Congress wanted the Federal Reserve to take some explicit course of action, it should be done by means of an amendment of the basic Federal Reserve Act.

This amounted to a challenge to Reuss and Douglas to take the direct route, and propose their legislation in the barest terms so Congress would have a chance to vote directly on the single issue.



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Bundling Idea protects formed channels

NATIONAL METAL FABRICATORS, CHICAGO, ILLINOIS, sought a way to package formed channels so that bundles would stay intact, despite severe handling. Their Acme Idea Man recommended bundling them with Acme Steel Strapping. (Idea U6-28)

Bundles remain intact and channels arrived on the job damage-free. Bundles of 50 to 100 channels give increased efficiency in handling and shipping operations. Inventory control is simplified and storage space is more efficiently utilized.

Acme Idea Man Tom Hopfinger helps National Fabricators solve their materials handling problems.

***Work with your Acme Idea Man.** With his help you may be able to find a more profitable shipping and materials handling method. Call him at your nearest Acme Steel Office. Or write Dept. BGU-89, Acme Steel Products Division, Acme Steel Company, Chicago 27, Illinois. In Canada, Acme Steel Company of Canada, Ltd., 743 Warden Ave., Toronto 13, Ontario.

ACME STEEL **STEEL STRAPPING**

In Business

• • •

$30-Million in Jobs on SAC Bases Set Aside for Small Contractors

Close to $30-million worth of Strategic Air Command construction work has been set aside for bidding by small contractors under the Small Business Administration's "set aside" program.

The work—mostly minor construction and maintenance—consists of some 1,400 separate jobs at 44 SAC bases in the U. S., Guam, and Puerto Rico. **Dollar value of the jobs ranges from $5,000 to $30,000.**

Among the things needed to qualify as small, a contractor must have averaged less than $5-million a year in volume for the preceding three years.

• • •

IBM Centers to Rent Computer Time To Business on Do-It-Yourself Basis

International Business Machines has come up with a do-it-yourself switch in the business of providing computer service for business. IBM provides the computers; you bring your own programers and operators.

Starting in Wall Street next March, IBM will set up 25 or 30 Datacenters in major cities, where, for less than $300 an hour, you can rent the use of a large, transistorized 7070 computer. This setup differs from that of Service Bureau Corp., an IBM subsidiary, which provides a complete programing and analysis service at hourly rates.

Datacenter's initial invasion of Wall Street follows RCA's announcement of a computer center in New York's financial center (BW—Jul.4'59,p22).

• • •

FCC Opens Some Microwave Frequencies To Private Communication Systems

The FCC has opened to private users the microwave radio frequencies above 952 megacycles. It's a major breakthrough in the fight for space in the radio spectrum (BW—Jul.4'59,p40), and will mean reduced cost of communication for truckers and other decentralized businesses.

Hitherto, the FCC has prevented most companies from setting up their own microwave systems whenever common carrier facilities—generally telephone companies—were available. The new rules not only open up the frequencies, but permit private "right of way" companies such as truckers, whose rates are regulated, to cut costs by setting up cooperative microwave systems.

The Electronics Industries Assn. says that by 1966 there will be 10,000 private microwave stations instead of the present 2,500; makers of equipment expect a big boost in sales.

Meanwhile, Rep. Oren Harris (D-Ark.) has introduced a bill setting up a board to allocate frequencies between government and nongovernment users, and to oversee the assignment of government frequencies.

• • •

Congress Bars Use of Federal Funds To Buy Russian-Made School Equipment

Congress has decided that U. S. school children should not be exposed to "Made in Russia" signs on classroom demonstration equipment.

In a rider tacked on the Health-Education-Welfare appropriation bill by the Senate, both Houses voted to forbid local school districts to buy Soviet science equipment with federal funds under the National Defense Education Act. The Administration opposed the ban as federal interference in local affairs.

Schools had been buying the Russian-made equipment, which was admittedly of excellent quality and offered at prices well below the domestic market (BW—Jan.24'59,p34). **U. S. manufacturers charged the Soviets were using the equipment to undermine them and to impress the school children with the "Made in Russia" label.**

The Post Office Dept. has dropped its ban on buying foreign-made office machinery, in response to a campaign by the National Council of American Importers. However, the Post Office reminded importers that it would continue to give "full consideration" to factors of repair and service.

• • •

Business Briefs

Trans World Airlines, in the red for three years, emerged with a record second-quarter net of nearly $8.2 million that gave it first-half earnings of 23¢ per share. The company credited much of the change to the profitability of its jet operations.

Dr. James R. Killian Jr., head of MIT and until recently Special Assistant to the President on scientific matters, has been elected to the board of General Motors.

The State, Treasury, and Agriculture Depts., the General Accounting Office, and a dozen other agencies have joined the Pentagon in having **direct dialing phone service to the individual extension from any U. S. city.** You just dial the Washington exchange (202), the office exchange, and the extension. Here are the offices that can be dialed, with their exchanges: Defense (Oxon), State (Dudley 3), Treasury and IRS (Worth 4), Agriculture (Dudley 8), GAO (Dudley 6). The Small Business Administration, Housing & Home Finance Agency, Bureau of Public Roads, and several other agencies share Dudley 2.

Before you buy, see and try Smith-Corona's new Secretarial, the only office typewriter with lighter, livelier, ACCELERATOR ACTION!

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ENGINEERS LIMITED CO., SAN FRANCISCO

New **CASCADE KRAFT** Pulp and Paper Mill

chose JENKINS VALVES

on a proved record of stamina in severe duty

Few valve services are so rigorous as pulp and paper making. And few pulp and paper mills have been planned with so much know-how and care as the new Wallula, Washington mill of the Cascade Kraft Corporation, a subsidiary of Boise Cascade Corporation. *"Best of its kind"*, was the directive covering everything from the eight-story high boiler to the kraft paper making machine as long as a football field to the valves and other accessory equipment.

The corporation's engineers, from experience that includes many of the country's famous paper mills, chose JENKINS Valves to control the transfer of pulp liquors and stock, high pressure steam, water, air and for fire protection service. The choice was based on the proved reliability and economy of Jenkins Valves in severe duty.

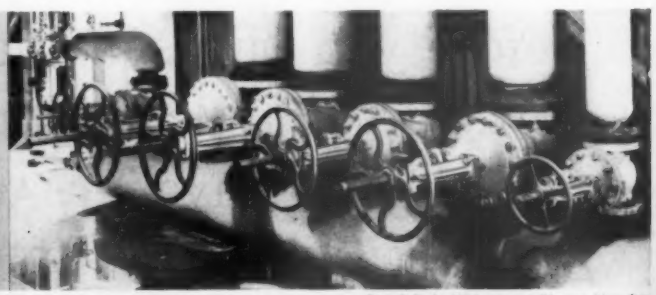
Surely, valves with the stamina to stand such severe duty are a wise choice for ANY plant or building . . . especially since Jenkins Valves cost no more. Jenkins Bros., 100 Park Ave., New York 17.

JENKINS

LOOK FOR THE JENKINS DIAMOND

VALVES

JENKINS SINCE 1864 Jenkins Bros



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WASHINGTON OUTLOOK

WASHINGTON BUREAU AUG. 8, 1959

The coming talks between the Big Two have elements of risk. Diplomatically, there is logic supporting a new optimism (page 26). But you can't blink the political risk, particularly affecting the Republican Party and the Presidential ambitions of Vice-Pres. Nixon. And the security risk—that is, the success of the Secret Service in seeing that Khrushchev is not molested—can become a headache.

Khrushchev has wanted to come to the U. S. ever since he took over. Pres. Eisenhower has now allowed himself to be persuaded the trip is worth the try. Khrushchev will get red carpet treatment.

The treatment will be according to "the book." Khrushchev will see whatever he wants to see, from workers' dwellings to the biggest industrial plants in Detroit, Pittsburgh, Chicago, and elsewhere.

He has been invited to stay at Blair House, the historic residence across from 1600 Pennsylvania Ave. where ranking foreign visitors have resided in trips past.

Washington political society will be in its element. Eisenhower will entertain; so will the Nixons with a "bread and butter" return of the Soviet premier's hospitality at the Khrushchev Dacha. Secy. of State Herter will have him to dinner. The Soviet Embassy will hold forth during the three days he is in Washington.

He will appear on television, as Nixon did in Moscow.

Kentucky wants Khrushchev to come to the state fair. He will get to the Farm Belt, the West Coast, see such sights as Bonneville and Hoover Dam, as well as our airframe and missile industries there.

So the security problem is a big one. The Secret Service, which guards Eisenhower, doesn't like the job of protecting Khrushchev—particularly in areas where Eastern European minorities are a big part of the population. The Hungarian refugees, the Polish in Chicago and Detroit may be hard to discourage expressing their opposition.

Officials can't forget that Nixon received some heckling on his trip; they fear there will be some here.

The political risk to the GOP is great.

The GOP will look good if the exchange of visits does result in a lessening of East-West tension. That, of course, is what the Washington Administration hopes for.

But the party will look very bad if nothing is gained. That's the fear expressed in political circles.

Vice-Pres. Nixon's neck is way out. Nixon didn't initiate the idea of the Big Two visits. But he did help bring the decision about. Nixon, after visiting Khrushchev, felt strongly that a meeting with Eisenhower would be a good thing.

A flop will reflect against Nixon. The Rockefeller boosters have this much in mind.

—•—

New York's Rockefeller dominated the Governors Conference at San Juan this week. As it turned out, every day was "Rockefeller day" as the U. S. governors assembled for work and play. Here's a play-by-play:

WASHINGTON
BUREAU
AUG. 8, 1959

On Sunday, the big item was Rockefeller's news conference. It was jammed by reporters from all parts of the nation. Rockefeller handled himself skillfully under tough questioning, won widespread admiration among the press. Other governors held news conferences, but none had a comparable audience of reporters.

On Monday, Rockefeller displayed his social talent. He was host to the entire conference—governors, their wives, their official parties, and newsmen—at a huge party in the Dorado Beach, a plush resort hotel developed by his brother Laurance.

On Tuesday, Rockefeller got an assist from Washington. Eisenhower dispatched Allen W. Dulles, chief of the Central Intelligence Agency, to San Juan to give the governors a fill-in on the cold war. Dulles performed at the day's featured session, with Rockefeller presiding.

A slight nudge will put Rockefeller in the race for President. The governor and his advisers will spend November and most of December appraising political trends and studying popularity polls. If Rockefeller decides he can win the GOP nomination, he will announce around Christmas or New Year's.

The Democratic Presidential picture is really muddled.

A several-sided fight for the nomination is in prospect. As the governors see it, the convention fight probably will shake down after the first couple of ballots to a field composed of Adlai Stevenson, Sen. John F. Kennedy, and Sen. Stuart Symington. Chances of Sen. Hubert Humphrey and Sen. Lyndon Johnson, never very good, are further discounted.

—•—

Congressional adjournment is several weeks distant.

Democrats' determination to build a "record" for 1960 elections is the biggest hitch. Some well-informed guesses on adjournment time now run to mid-September and beyond—quite late for a peacetime session. The party feels it must act on housing, highways, labor reform, and civil rights. All are controversial and will take time.

A businessman's checklist of pending bills:

Self-employed pensions. The House-passed bill is still before the Senate Finance Committee, where opposition makes the prospects dim for any further advancement.

Pre-merger notification. No action is expected this session.

Price notification has no real steam behind it this year.

Fair trade can be written off. This is the attempt to obtain federal sanction for retail price-fixing on brand items. Supporters a month ago took too much encouragement from the fact that the House Commerce Committee approved a bill for federal control.

The "good faith" bill stands no chance. It would limit a seller's right to cut prices to meet competition.

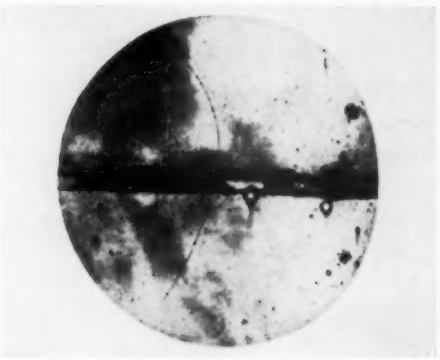
Manufacturer relations with retailers are subjects of other proposals that are being given a quiet burial. One such bill would prevent manufacturers from selling to their own retail outlets at prices lower than they quote to independent retailers. Another would force manufacturers to give bigger discounts to wholesalers than to large retail chains.

SPECIAL USS REPORT

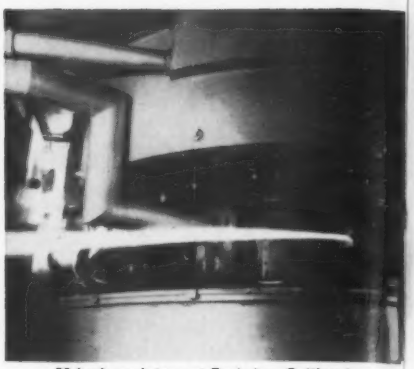
ATOMIC ENERGY
ITS PAST—ITS FUTURE

See report on following two pages

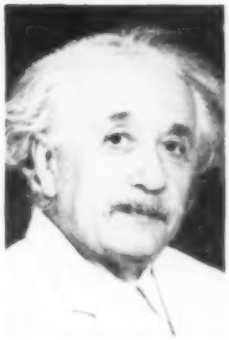
Original plate that awakened Becquerel's curiosity.



Original plate showing discovery of positron.



60-inch cyclotron at Berkeley, California.



How men are unraveling the secret of the sun

The story of atomic energy, its past—its future

"*And the thoughts of men are widened with the process of the sun*"—Alfred, Lord Tennyson. On the preceding page is a special composite picture of the sun. Every second, that stupendous star converts 6 million tons of matter into pure, unadulterated energy in accordance with Albert Einstein's precedent-shattering formula, $E=MC^2$, developed when he was 27 years old. That energy falls upon the earth at the incredible rate of 5 million horsepower per square mile, and this has been the source of all of man's energy needs since the beginning of time.

Slow bomb. Only in the last 20 years or so have we been able to fathom how the sun generates this energy. Before that time, scientists were baffled by the fact that if the sun was "on fire" it would have consumed itself in 2,000 years. Yet we know that it has been radiating for more than 500 *million* years. Briefly, we now feel reasonably sure that the sun generates its energy by a process known as the hydrogen chain, which might be thought of as a slow, controlled hydrogen bomb—the process known as nuclear fusion.

Man has learned how to make the hydrogen bomb, and he now works to control it. He will succeed, and thus come full circle to duplicate the sun's energy method on this earth.

Fission then fusion. Fusion power generation was only a mathematical hope until men discovered the secret of the atom while experimenting with the process of nuclear *fission*. Here's the story:

It all started in 1896 when a French physicist named Henri Becquerel noticed that uranium minerals would blacken a photographic plate. Within a year, Marie Curie and her husband Pierre solved the mystery of uranium and announced to the world the discovery of *radioactivity*.

Now man knew that there were subatomic particles.

In 1919, England's Ernest Rutherford became the first man to disturb the nucleus of an ordinary atom. He bombarded nitrogen with rays from a radioactive material and succeeded in knocking a proton loose.

Annus mirabilis. 1932 was the *annus mirabilis* (miracle year) of nuclear physics. The first practical cyclotron was developed. A new particle of matter was discovered: the positron. Heavy hydrogen was identified. Also in that miracle year, the neutron was discovered in England. This was a pivotal finding, for the neutron is the theme song of nuclear energy.

In 1934, in Fascist Italy, Enrico Fermi was irradiating silver with neutrons when he found that a block of paraffin placed in the beam would greatly *increase* the radioactivity of the bombarded element. He had discovered the first "moderator," now an essential component of most nuclear reactors.

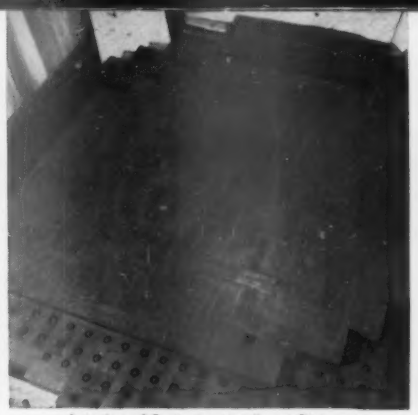
Setting the stage. Four years later, Fermi went to Stockholm to receive the Nobel Prize. Then he promptly left for the United States, never to return to live in his native land. The stage was rapidly being set.

On January 15, 1939, the great Danish physicist Niels Bohr arrived in this country to talk over some problems with a German refugee, Albert Einstein. Bohr found an electrifying cablegram waiting for him. Two of his colleagues, both German refugees, announced that they had succeeded in splitting an atom of uranium into two roughly equal parts. The parts weighed less than the original. The lost matter must have been converted into pure energy, in keeping with Einstein's 24-year-old unproved theory! They called this process *fission*. The stage *was* set.

Vast amounts of power. Things moved rapidly. Three months later, Enrico Fermi visited Washington and suggested that a chain reaction of fissioning atoms might be possible. No action was taken. In August, three prominent physicists drove out to visit Einstein, who was on vacation. They wanted him to sign a letter addressed to President Roosevelt. It said, in part, "In the course of the last four months it has been made probable . . . that it may become possible to set up a nuclear reaction in a large mass of uranium,

Niels Bohr at age 28.

Enrico Fermi receiving Nobel Prize from King Gustav.



Interior of first atomic pile at Chicago.

USS Nautilus, first atomic-powered vessel.

by which vast amounts of power . . . would be generated . . . I understand that Germany has actually stopped the sale of uranium . . ."

"For the first time." Albert Einstein signed the letter and said, "For the first time in history, men will use energy that does not come from the sun." So the curtain rose on the greatest scientific enterprise of all time.

Enrico Fermi was put in charge of designing the first test reactor in the now-famous squash court at the University of Chicago. He had many American physicists to help him, but some of the most profound contributions were made by foreign-born scientists driven out of Europe by the insanity of Adolph Hitler and Benito Mussolini. And when they were ready to start the reactor to see if it would work, he went down in history with his remark, "Let's go to lunch."

Unscared wine drinkers. At 3:20 in the afternoon, they pulled the last control rod out another foot, and the Geiger counters began to sing. A physicist walked up to Fermi and asked, "When do we become scared?" One man had brought a bottle of Chianti wine along and they drank from it in paper cups, in silence, without a toast. Outside the building there is now a plaque that says:

ON DECEMBER 2, 1942
MAN ACHIEVED HERE
THE FIRST SELF-SUSTAINING
CHAIN REACTION
AND THEREBY INITIATED THE
CONTROLLED RELEASE OF
NUCLEAR ENERGY

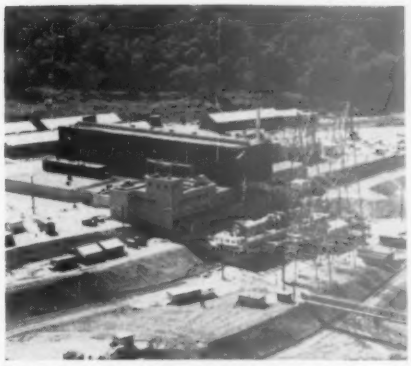
In the words of Enrico's widow, Laura Fermi, "This is the birth certificate of the atomic era."

On land and sea. There would be no atomic energy program without steel. The super-secret works at Oak Ridge, Hanford and Savannah River contain thousands of tons of special alloy and Stainless Steels produced in the mills of United States Steel. Scientists from U. S. Steel are working on a full-time basis at Brookhaven, Vallecitos and other atomic research laboratories.

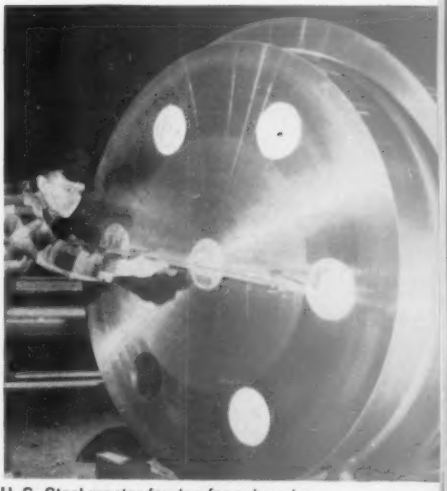
As the new nuclear technology rolls forward, nothing is more new than the steels. United States Steel forged reactor parts for the nation's first peacetime atomic energy plant at Shippingport, Pa. When the *USS Nautilus* poked her cold nose up from under the polar ice cap, she was a showboat for incredibly strong, weldable steels. The new aircraft carrier, *USS Enterprise*, will bristle with United States Steel forgings and strange steels that were only a dream a few years ago, until U. S. Steel's research program found a way to make them withstand the tremendous heat, stress and radiation of atomic energy.

Stellarators and Perhapsitrons. This was the story of fission—the splitting of large atoms into small atoms. Now man strives for the ultimate power source, the energy of the sun, *fusion*—the combination of small atoms into larger ones. Fission depends upon rare and expensive uranium. Fusion depends only upon hydrogen, available in inexhaustible amounts from the sea. We work against fantastic odds in a vast world of unknowns dealing with temperatures in the millions of degrees. But already we hear the impatient voices of physicists working in this new medium, some of whom were only in grade school when Fermi drank the wine. And we read the strange names of their machines, such as the Stellarator (which contains a new USS-developed Stainless Steel called Tenelon) and, whimsically, the Perhapsitron. It's only a matter of time.

USS
TRADEMARK
United States Steel

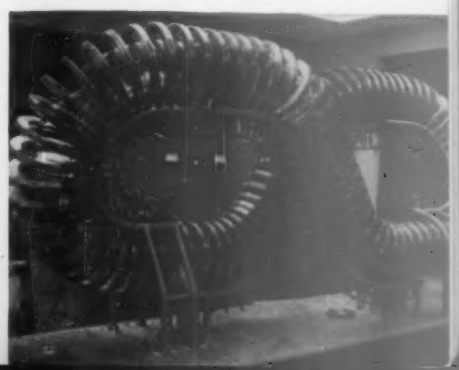


First peacetime atomic generating plant at Shippingport, Pa.



U. S. Steel reactor forging for submarine.

Stellarator at Princeton investigates fusion reactions.



FINANCE

How Civic Pride Helped Save an

Los Angeles' leading businessmen pitched in to aid Pacific Mutual Life when reserves slipped below required minimums.

Last week, officials of Pacific Mutual Life Insurance Co. in Los Angeles (pictures) handed over a check for $8,080,575 to California's insurance commissioner, F. Britton McConnell. The check is the last step in the process of retiring the company's stock and making a full-fledged mutual company out of Pacific Mutual. Since 1936, when the assets of the company's predecessor, The Pacific Mutual Life Insurance Co. of California, were seized by the state, the stock has been held by the Insurance Commissioner, and then, starting in 1938, by a voting trust.

Delivery of the check marked the end of a reorganization saga that may well become a classic in American business. Both in size and in duration, PM's reorganization was impressive. In 1936, the company was $40-million in the hole. It was plagued with lawsuits, stockholder dissension, and ugly rumors about its management. Now completely rehabilitated, it has its sights set on the future.

• **Changing Ways**—In the 23 years since 1936, PM has increased its assets from $222-million to $780-million, its insurance in force from $643-million to $2.6-billion. It also has transformed itself from a stock company to a mutual company, owned by its policyholders. Until this move, it had been mutual in name only; the California law under which it was formed in 1867 allowed any insurance company to call itself mutual if it had a mutual department, selling participating life insurance.

The $8-million check last week climaxed the switch from stock to mutual. The money will be distributed among the 5,000 persons who held stock in The Pacific Mutual Life Insurance Co. of California.

• **Businessmen to the Rescue**—Perhaps the most significant aspect of the reorganization is that it came to pass only through the efforts of Los Angeles' inner circle of businessmen. Out of civic pride and self-interest, they were determined to keep the company alive.

In the mid 1930s, there was real doubt that PM could be saved. It had written a great many special disability policies that didn't pay their way. Management had been passing out dividends while the company was losing money. There were even charges that corporate officials had been speculating with company stock.

• **Top-Drawer Directors**—But to keep the company going, a select group of business leaders rallied behind Asa V. Call, then vice-president and now chairman of the board, and the late A. H. Kemp, then president. At the time, PM ranked sixteenth among the nation's insurance companies. It was a big wheel on the West Coast, and the businessmen felt that liquidation would be a rude shock to the entire region.

Members of the group accepted jobs as directors and voting trustees of the company. The first board after reorganization in 1936 numbered among its members the late Shannon Crandall of the Security First National Bank and George Gund, president of Gund Realty Co. and now president of Cleveland Trust Co. Both Security First and Gund Realty held big blocks of PM stock, but, like the others chosen for the board, they were men of integrity and private means. Their blue-chip quality gave PM a fresh start.

THE CRISIS OVER, Chmn. Asa V. Call (right) discusses future plans with Vice-Pres. Lyman Robertson (left), Pres. T. S. Burnett.

Insurance Company

These men threw some business to the company directly. But, even more important, they lent PM prestige and an air of solidity, which helped bolster confidence. And their affiliations throughout the community indirectly helped bring in new business.

The policy of putting business leaders on the board, born of necessity, still prevails. Today's directors include such top talent as Charles S. Jones, president of Richfield Oil Corp.; Frank L. King, president of the California Bank, and T. S. Petersen, president of Standard Oil of California.

I. Woes and a Way Out

Pacific Mutual's troubles started in 1918, when it began writing a new kind of policy called a non-cancellable disability insurance policy—or non-can. The policy provided that the insured would receive a monthly indemnity for the duration of any disability that caused him "continuous necessary and total loss of all business time." The first policies were written to cover disabilities occurring before age 65; later, the limit was revised to 60.

This type of policy originated in England, where it had been a boon to many insurance companies. But PM set its premium rates without any previous loss experience to go by—and it set them far too low. At the outset, premiums covered only 20% of the actual cost of the claims. Then, after recognizing its miscalculation, PM erred again by raising rates too slowly, even though actuaries in the mid-1920s warned that its reserves weren't adequate for the claims. Premiums were raised, but never to the point where they equalled costs.

With 1929 and the onset of the Depression, the dam broke. Many policyholders found it much more profitable to become "disabled" and draw payments of up to $1,000 a month than to continue working. There was obvious malingering, recalls Lyman S. Robertson, vice-president. PM's 49,000 non-cans were a dangerous drain on its reserves.

• **New Blood**—Still the company moved slowly to deal with the problem. But in 1934 it named as vice-president Asa V. Call, an attorney who had made a reputation as a specialist in corporate reorganization. Call had helped revive Richfield Oil, and he commanded respect throughout the state. The next year, PM hired an accounting firm to study its problems. As an aftermath, Pres. George I. Cochran, who had been with the company since 1905, was elevated to chairman. He was replaced by A. H. Kemp, a man with a record for accomplishment in saving and organizing companies. Kemp had played a role in assembling Southern California Edison Co. out of a group of small utilities and in reshaping the California Bank in 1927.

Kemp and Call were dismayed that at a time when the company's reserve position was shaky, it had paid out $5.5-million in dividends and marked up the asset value of the home office building by $3.5-million. Armed with these findings, Kemp and Call aired PM's plight at a routine triennial examination by the National Assn. of Insurance Commissioners in 1936. Under insurance law, a company must hold assets equal in worth to the present value of future liabilities, less the present value of future premiums. PM fell $40-million short of this mark.

• **Reorganization Begins**—California's insurance commissioner, then Samuel L. Carpenter, and the company's officers explored ways to save PM. But there seemed to be no solution. Eastern insurance companies were not interested in reinsuring PM. California's financial institutions shied from the $40-million gap in reserves. The federal government refused help. So on July 22, 1936, Carpenter seized PM and created a new company from the assets of the old one.

As a face-saving gesture, Carpenter changed the name only slightly—from The Pacific Mutual Life Insurance Co. of California to Pacific Mutual Life Insurance Co. The new outfit was established with capital of $1-million and a surplus of $2-million, from funds available from PM's still-solid participating life insurance department.

• **Two Facets**—There were two major provisions to the reorganization. The first was a reinsurance of all existing policies. The new company agreed to continue all life insurance and health and accident policies. But new sales of non-cans were banned. Existing non-can claims were paid at full rates, but benefits were reduced on non-can policies still in force. In effect, the company agreed to pay only as much of the monthly benefit as the premiums covered at the time the policy was written—from 20% to 90%. On a $1,000 policy written when premiums covered only 20% of claims, for instance, PM would pay 20% or $200. Eventually, the difference would be made up through a special fund drawing on future surpluses. PM has made $30-million of such compensatory payments.

Of course, disgruntled policyholders could take to the courts. But out of 375,000, only 1,000 filed suits, and all but 30 of these were non-can holders. Ultimately, PM paid out $800,000 to satisfy the court actions.

IN 1934, Asa Call came to PM as vice-president to work on rescue. He teamed with A. H. Kemp, president, who died in 1955.

• **Going Mutual**—The second phase of reorganization was the signing of a mutualization agreement, under which policyholders could vote in 10 years on whether or not to make the company truly mutual. The company's general agents liked the idea of becoming mutual, because it would help them save face. The insurance commissioner liked it because the capital and surplus to launch the new company had, after all, come from the old company's participating life department—out of profits that participating policyholders might otherwise have shared in. And, besides, the mutual form of insurance has been gaining sales acceptance; the mutuals write two-thirds of the business now.

In 1946, the policyholders did indeed vote for mutualization. By early 1958, restoration of benefits was completed on the last non-cans, and last week mutualization finally took place.

The mutualization agreement set off a stream of stockholder suits, on the ground that the company hadn't been

insolvent at all and would pull itself out. But Kemp and Call weathered all the legal opposition.

II. The Happy Ending

Kemp and Call planned a slow, deliberate rehabilitation. First, they shored up the general agents by paying subsidies to keep them in business. Only 1 out of 75 agents selling PM policies quit. The company shifted for a while to selling more non-participating insurance, because the lower initial premiums had an appeal during depression years. Instead of increasing costs by adding new agencies and offices, the company became more investment conscious. Returns on its portfolio helped build up reserves and surpluses.

The figures show just how slowly the new company inched ahead at first. Insurance in force actually declined from 1936 to 1942, from $643-million to $600-million. Assets grew only from $222-million to $262-million. Not until 1942, in fact, could PM begin restoring benefits on its non-cans.

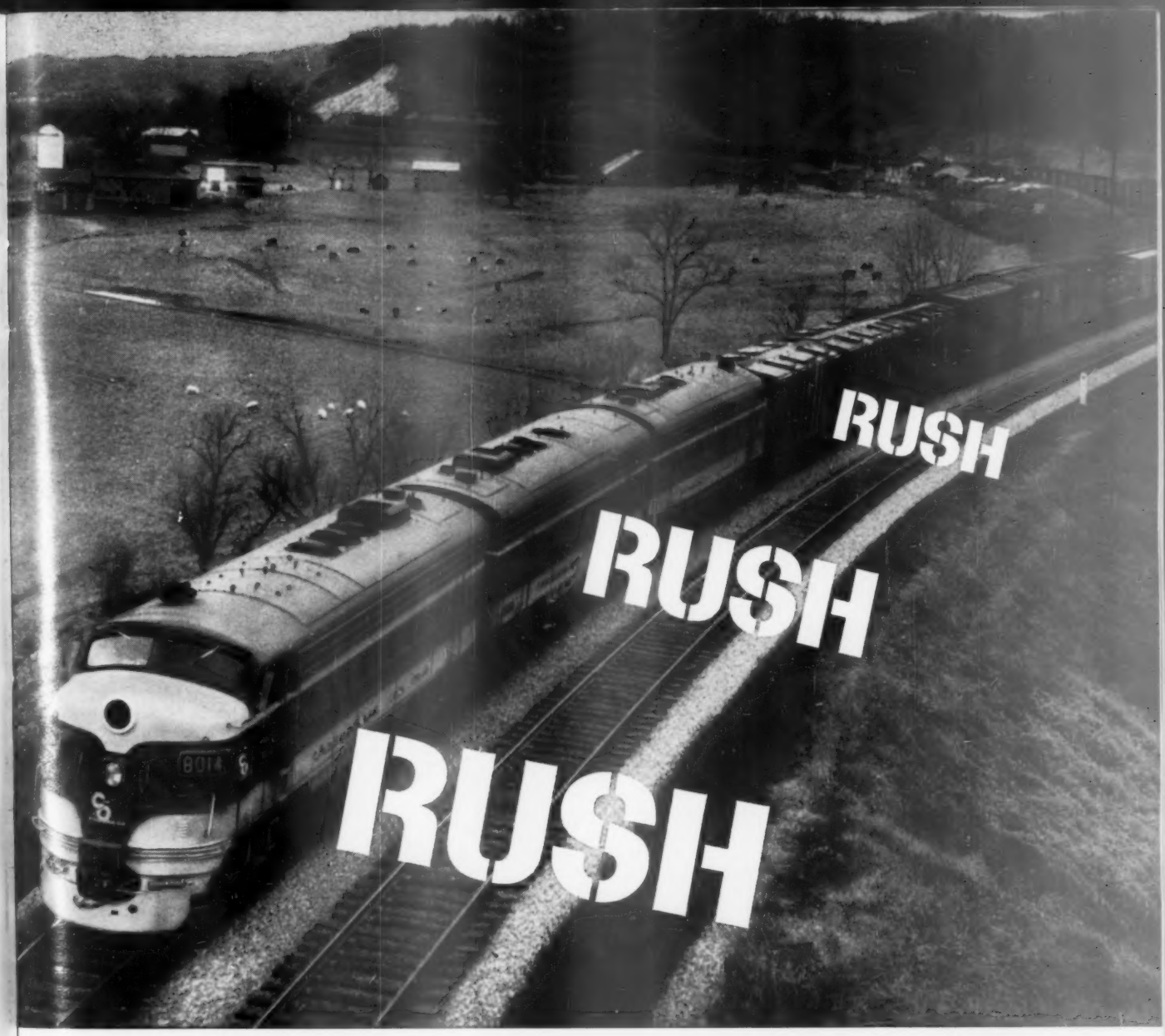
One brake on growth was the need to accumulate reserves. PM couldn't sell insurance all-out until it could meet all its obligations. So it confined itself to good risks and made sure reserves were adequate.

• **Assets Doubled**—The war years gave the company its first big surge. Insurance in force swelled from $600-million to $718-million at the end of 1945. In the next decade, PM more than doubled its assets and insurance in force. Much of the increase came from group insurance, which the company started selling in 1949; today group makes up half of PM's insurance in force.

Since 1942, the company has been guided by Call. But, at 66, he feels his work at PM is about finished. In 1956, he was named board chairman, and T. S. Burnett, who started as an office boy in 1928, was elected president. Burnett was made chief executive officer last March.

One of Burnett's first objectives is to integrate the company's activities into one-stop service. In some cities, PM has maintained as many as four different offices—general agency, group insurance, mortgage loan, and claims. But PM put up a new building in Seattle last year, and it has a new one going up in Phoenix. In addition, plans have been drawn for new offices in six other cities.

Now, with its worst days behind, PM is ready to expand with the expanding West. According to insurance experts, the company ranks among the soundest in the country. "We had the right people pulling for us," observes one company official. "We won't let them down." END



CLIC makes "RUSH" click

The shipper's new line was "hot". Customers snatched the samples off the dealer's floor so fast the big problem was to replace them quickly enough. So, in collaboration with Chesapeake and Ohio Railway, the shipper organized a "crash program" to rush every shipment during the introductory period.

In the 25 days this program was in effect, C&O's CLIC (Car Location Information Center) supplied to the shipper nearly 1,400 teletype reports on the movements of more than 500 cars going to dozens of different cities. When the car was received; when it was delivered to the consignee or connection; and often an interim progress report.

This reporting service was so prompt and complete that not once did the shipper have need to ask for further information, and at the end, the Traffic Manager gave C&O an enthusiastic "Well done".

For prompt reporting of your regular shipments, or if you should have occasion to launch a "crash program" of your own for fast delivery, be sure to talk it over with your C&O Freight Traffic Man. See how easy it is when CLIC keeps a finger on every car movement.

Would you like a copy of a booklet describing CLIC? Just write:

Chesapeake and Ohio Railway

3800 TERMINAL TOWER, CLEVELAND 1, OHIO

SHIP C&O . . . AND WATCH IT GO!

Changing nature's timetable

The cotton plant normally holds its leaves long after its bolls mature white with lint ready for picking. No problem when labor was plentiful to hand-pick America's millions of acres of cotton, leaves became an expensive nuisance with the advent of the mechanical picker. They contaminate machine-picked lint with trash and stains.

V-C research developed a practical answer to this vexing problem—FOLEX, a highly efficient defoliant. One low-cost spray with a few ounces of FOLEX mixed with water makes an acre of cotton lose its leaves at any time the farmer wants to pick. Because all leaves drop green to the ground, the picker harvests cleaner lint, effecting big savings in the field and at the gin.

FOLEX—a V-C phosphorus chemical—is another basic contribution to profits and progress for every American by a company old in agricultural and industrial experience and young in progressive ideas—

Virginia-Carolina Chemical Corporation • Chemicals Division
401 East Main Street, Richmond 8, Virginia • Phone: Milton 8-0113

FOR PROFITS AND PROGRESS... SEE V-C

The Woes of Arizona S&L

State mulls reorganization plans for big company taken over after its loan policies were assailed. Outfit was outside Federal S&L Insurance Corp. and trade group.

At 3:30 p.m. last June 15, the state of Arizona announced that it was taking over the assets of the $46-million Arizona Savings & Loan Assn., one of the largest in the state.

This week, Arizona's banking superintendent, David O. Saunders, who was appointed receiver for the Arizona S&L, was trying to decide just how to reorganize the institution without hurting shareholders. He is also studying new regulations on S&Ls in order to prevent the need for similar takeovers in the future.

Other states, and the entire S&L industry, are watching with interest. For the taking over of the Arizona S&L represents a direct blow against a type of institution that has been worrying the industry: the uninsured, or commercially insured, S&L operating under loose or non-existent state regulation.

• **Not a Member**—The Arizona S&L was not insured by the Federal S&L Insurance Corp., an agency supported by premiums from S&L members and a counterpart of the Federal Deposit Insurance Corp.—nor was it a member of the Savings & Loan League, the trade association. Traditionally, it paid more on savings than other S&Ls in the state, and did a lot of out-of-state advertising to attract funds.

Most S&Ls are members of the FSLIC, which today insures over 93% of all S&L assets and insists on strict regulations and periodic examinations.

While the FSLIC insures the bulk of S&L assets—which are now about $55-billion—it insures only 63% of the nation's individual S&Ls. Many small S&Ls say that they would like to get FSLIC insurance, but can't meet the basic requirement for size—which varies from $300,000 to $1.25-million, depending on the city. Others are not full-time operations, which may prevent them from qualifying. However, some quite large S&Ls have made no move to come under FSLIC and its regulations.

• **Public Charges**—The chain of events that led to Arizona S&L's downfall actually started on Mar. 25, 1958, when state representative James Corbett charged the company was making "excessive" loans. He called for an investigation of Arizona S&L and its then president, James R. Heron. In particular, Corbett objected to the company's advertising that its deposits were "insured" by International Guaranty & Insurance Co. of Tangier, Morocco. He said there was no way of collecting the insurance if it ever were needed.

As a result of Corbett's charges, a run started on Arizona S&L. But after a couple of days—and withdrawals of about $6-million—things quieted down. The company stopped advertising that its accounts were "insured." Within a year it had recouped its deposit losses and even gained a few million. In September, 1958, Heron sold his controlling interest in Arizona S&L—which, unlike most S&Ls, is stockholder rather than depositor owned—to V. Frank Kanan, former Kansas City real estate operator.

• **State Steps In**—When that happened, everybody thought the Arizona S&L had successfully weathered its storm. Then, suddenly, the state stepped in, taking over on a complaint that for the previous year Arizona S&L had "jeopardized" the funds of its depositors, by operating in an "unsafe and unauthorized" manner. Said Saunders: "We had to do it to protect the 39,000 depositors."

Though only fragmentary details of the state's highly complex case have been made public, the key seems to lie in a series of loans, totaling about $9-million, that Kanan made to companies controlled by a former business associate, Donald R. Elbel, of Kansas City. The state alleges that these loans "were made in excess of 60% of the conservative market value of the real estate in violation of law."

The impact of Arizona's action on the Elbel enterprises has been less than salutary. In the Kansas City area alone, construction work on 2,500 homes was halted when Arizona S&L's operations were suspended. Moreover, the Coffeyville (Kan.) Loan & Investment Co., which was controlled by Elbel, has gone into bankruptcy. This company owes Arizona S&L at least $315,000.

• **Reorganization**—There are indications that the doors of Arizona S&L may be reopened within the next few months. Officials say they would prefer to see Arizona S&L reorganized and a member of the FSLIC than to liquidate it. One large savings and loan holding company, the First Charter Financial Corp. (BW—Jul.18'59,p106), controlled by Mark Taper of Los Angeles, has already expressed interest in Arizona S&L. END

U.S. Business in Canadian Garb

U. S.-owned companies are going Canadian—in policy, products, personnel—to meet new conditions north of border.

Since early summer a Canadian company, at the urging of its president, has been peppering customers, suppliers, and advertising agencies with labels, cards, and point-of-purchase displays proclaiming "Sell Canadian/Buy Canadian/Keep Canada Growing."

That's hardly surprising in Canada's present nationalist mood. What is surprising, though, is that the company, B. F. Goodrich Canada Ltd., is a wholly owned subsidiary of a U. S. parent, and that the president spearheading the Buy Canadian drive, Robert Yohe, is an Iowan who has been in Canada less than a year.

Yet this is only an extreme case of what is happening to many U. S. subsidiaries north of the border as U. S. direct investment piles up (chart) and Canada's spirit of nationalism continues to grow stronger. B. F. Goodrich, for example, has been in Canada since 1925. But, though it's long-established, almost a veteran, it's finding that the conditions of doing business in Canada are changing for U. S.-owned enterprises.

Its sudden campaign of Canadianization—as the Canadians themselves call it—is not a whim, nor a marketing gimmick, but an answer to this fundamental shift of conditions. Other U. S. subsidiaries have undergone a similar change of perspective and tactics in the past few years as they have discovered that putting on a Canadian face has become a basic requirement of competitive existence.

The change, of course, is most noticeable in the maple leaves and scarlet-coated mounties that seem to show up even more frequently in advertisements of U. S.-owned companies than in those of their Canadian-owned competitors. It's not confined to these outward evidences of Canadianism, however. All down the line—in product, promotion, policy, and personnel—U. S. subsidiaries in Canada are trying to identify themselves more closely with the country where they operate.

• **Response**—All this is a natural response to the post-World War II development of strong nationalistic attitudes in Canada. The Royal Commission on Canada's Economic Prospects report of early 1957 pointed up to Canadians that U. S. businesses owned more than a 50% interest in such vital industries as mining, automobiles, oil, and gas, and that industries such as pulp and paper, still mainly under Canadian control, relied on the U. S. customer to stay in business.

The overwhelming victory of the Conservatives under Diefenbaker in June, 1957, after 22 uninterrupted years of Liberal rule, was another key to a growing nationalism, and the rise of anti-U. S. feeling. This feeling has been stimulated not only by fears of U. S. business power in Canada, but by such side issues as the application to U. S. subsidiaries in Canada of the U. S. ban on trading with Red China.

• **Impressive**—U. S. economic involvement in Canada is impressive. The percentage of fixed assets in Canada financed by outside capital rose from a 19% average for the years 1946-1949 to a 36% level for 1955-1959. And the U. S. share in this substantial outside financing—long the major factor—had reached 76% by last year.

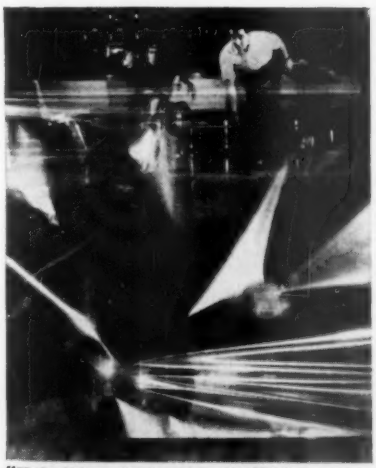
U. S. direct investment in Canada was put at $8.2-billion (in Canadian dollars) at the end of 1957 by the Dominion Bureau of Statistics (chart), and it's estimated that it tops $9-billion now. Over 4,000 Canadian companies were U. S.-controlled at the end of 1956; 11 years earlier there were fewer than 2,000 U. S. controlled companies in Canada.

The extent of U. S. business influence becomes even more evident from

MYLAR® helps improve product performance . . . cut costs

TV producers can cut studio time . . . eliminate costly processing by using video recording tape made with "Mylar".

Tough, thin Du Pont MYLAR helped solve a problem in developing video recording tape for the TV industry



"Mylar" has high strength. With an average tensile strength almost ⅓ that of machine steel, "Mylar" takes the crushing impact of fast traveling bowling ball.

Magnetic recording tape for use in electronic recording of sound and picture for TV broadcasting had to meet new standards of performance. The tape—called video recording tape—had to be thin enough to make intimate contact with revolving recording heads, yet tough enough to withstand relative recording speeds of 1,500 inches per second!

Alert tape manufacturers filled this need by using Du Pont "Mylar"* polyester film as the base for video recording tape. "Mylar", which had already proved its reliability in missile tracking and data computing, provided the necessary strength and toughness in thin gauges to meet the exacting demands of TV recording equipment.

This is but one of the many ways "Mylar" is helping industry improve product performance, develop new products and lower costs. Electric motors, for example, can be made smaller and more efficient with insulation of "Mylar". Manufacturers of electrical cable can cut material costs by using tough, thin "Mylar" as a core binder.

For additional information, write today for our new booklet. E. I. du Pont de Nemours & Co. (Inc.), Film Dept., Room B-8, Wilmington 98, Del.

*"Mylar" is Du Pont's registered trademark for its brand of polyester film. Du Pont manufactures the base material "Mylar"—not finished video recording tape.

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REG. U. S. PAT. OFF.
BETTER THINGS FOR BETTER LIVING...THROUGH CHEMISTRY

DU PONT
MYLAR
POLYESTER FILM

B. F. GOODRICH's Canadian subsidiary distributes these posters, featuring the company's trademark design pattern.

another figure: About 55% of the total production of all Canadian manufacturers with shipments worth more than $5-million comes from U.S.-controlled companies. This share has risen from 45% only six years ago, in 1953.

• **Same, but Different**—In the past, U.S. businessmen operating in Canada have often tended to consider Canadians simply as Americans living in a slightly colder climate north of an invisible border. One Canadian complained that "you people just consider us another state—and a relatively poor one at that." Now, however, U.S. businessmen are realizing, as never before, that whatever the similarities may be, there are also differences that require a different approach.

As American Cyanamid Co. expresses it in the current issue of its house organ: "As you drive through the Ontario countryside, the big thing that strikes you right away is that everything is much like back home—the houses, the cars, the way people dress, the things in shop windows. One reason for this is that many large American companies, including Cyanamid, operate in Canada, selling and frequently manufacturing the same products we use in the U.S.

"But you'll discover before long that there is a difference, and a very important one, even if Canadians are painstakingly polite and hospitable about pointing it out to you. The fact is that this is emphatically not an overgrown backyard to the U.S."

• **Shifting Tactics**—U.S.-owned companies are moving in a number of ways to adapt to these differences—and to meet the new Canadian consciousness of them. One area of change is in product design and promotion. Admiral television sets, Esther Williams swimming pools, General Electric clothes driers, Bristol-Myers deodorants are all not only manufactured in Canada, but altered to meet specific Canadian demands.

Ford Motor Co. of Canada Ltd. just last month announced the latest in a string of Fords designed for Canadians—this one called the Frontenac after a French colonial governor. It will use the frame of the Falcon, Ford's compact car, but with styling differences.

Advertising feels the change, too. Many companies deliberately soften a hard sell approach that they have found offensive to Canadians, or eliminate certain themes, such as copy in some drug and toiletry ads regarded as "too personal." In Quebec, any nudity is frowned on, even a baby in a soap ad.

Western Canada, where the boom in oil development has brought a flood of Texans, has different problems. Customers object to too many cowboy types in cigarette ads. "I don't mind putting up with 'you-alls' in the office," says one Albertan, "but not in the family living room." (One estimate has 30,000 Texans and Oklahomans, all earning more than $15,000 a year, living around Calgary, a city with a population of 180,000.)

• **Deeper**—These are mainly surface manifestations of the Canadianization moves; the programs go a lot deeper than product changes and promotional switches. U.S. companies have made it a definite policy to recruit Canadians for the boards of Canadian subsidiaries and for top executive posts there, according to one recent study of the "economic elite" of Canada done by John Porter of Carleton University in Ottawa.

U.S. subsidiaries—which make up more than 60% of the membership of the Canadian Manufacturers Assn.—have also pushed the association's Buy Canadian program, which distributes its posters in both French and English.

• **Made in Canada**—Canadian General Electric Co., Ltd., 99.2% owned by its U.S. parent, is taking positive steps to counter the dual criticisms that U.S. subsidiaries rely too heavily on U.S. sources of supply, and that they "just take orders at the receiving end of a

Announcing

THE STROMBERG® TRANSACTER* SYSTEM

FOR INDUSTRIAL DATA COLLECTION

Until the development of the STROMBERG TRANSACTER Data Communications System, industrial data gathering and transmission was a relatively primitive operation — completely dependent on manual recording and delivery, and subject to human fallibility every step of the way. The methods and techniques lagged far behind the speed, accuracy and efficiency of electronic machines widely used in data processing.

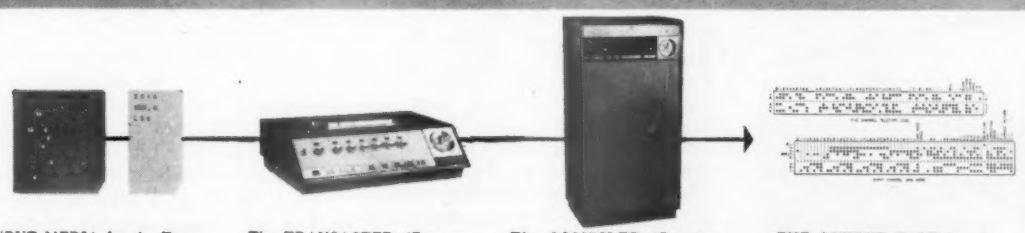
Now, however, Stromberg Time Corporation has developed, installed, and *proved under actual operating conditions* an electronic system which gathers industrial data at the factory department location, transmits it to the processing center and compiles it on universally machineable paper tapes. It provides the heretofore "missing link" in industrial data processing. *The entire operation*, from factory departments through compilation, now takes only seconds — even when multiple stations are involved.

Simply stated, the TRANSACTER SYSTEM is the first successful data collection system designed specifically for use in the factory. It obviates the necessity for intervening paper work and clerical operations between widely scattered data sources and a central processing office.

Compilation of management reports that has heretofore taken days — even weeks — can now be fully accomplished in *minutes!* Production and inventory control, job costing, receipt and shipment, on-line communication, job order recording — these are just a representative few of the scores of potential assignments for the TRANSACTER SYSTEM in modern industry.

Complete information concerning the Transacter System may be obtained from Stromberg Time Corporation at Thomaston, Connecticut, or from any of its Sales and Service Offices in the U. S. A.

**Trademark of Stromberg Time Corporation.*



INPUT MEDIA for the Transacter System are pre-punched cards or tags containing information obtained as a by-product of a preparatory function, or from master files of repetitive information.

The TRANSACTER *(Transaction Transmitter)* accepts input media and automatically transmits a composite message made up of fixed and variable information to a centrally-located Compiler.

The COMPILER (Receiver-Recorder) accepts messages from remote Transacter stations and synchronously records them in programmed sequence on paper tape at a speed of 60 characters per second.

THE OUTPUT TAPE is suitable for direct input into communications systems, automatic typewriters, tape-to-card converters for tabulating equipment, or electronic data-processing equipment.

THE SYSTEM THAT MAKES IT POSSIBLE FOR PEOPLE TO SPEAK TO MACHINES

The TRANSACTER SYSTEM will be demonstrated at: THE Business Equipment Exposition, Washington, D. C., September 23-25; Systems & Procedures Association, Toronto, October 12-14; Controllers Institute Conference, Pittsburgh, October 25-28.

Stromberg **TIME CORPORATION**
makers of the world's finest time equipment

Thomaston, Connecticut

SUBSIDIARY OF GENERAL TIME CORPORATION

". . . Canadian facilities are no longer called 'branch plants,' a phrase that angers Canadians . . ."

(STORY on page 50)

New York telephone line." First step—taken in late 1957—was to name a Canadian, Herbert Smith, as president of CGE, the first local man to hold that job since 1924.

Smith has been loudly denouncing Canadian imports of U.S. electrical goods, despite the fact that his parent company, GE, is a major U.S. exporter. He had a detailed 50-page handbook prepared outlining the exact relationship between every part of CGE and the parent company.

CGE has also stepped up its build-in-Canada policy, so that:

• It now makes in Canada about $1-million worth of goods it used to import from the U.S.

• Ranges, with 70% of Canadian-made components in 1953, are now 90% home-made. For refrigerators, the figure jumped from 65% to 85%.

Another Canadian complaint has been that even where manufacturing was done in Canada, product research and development originated in the U.S. To counter this gripe, RCA Victor Co. Ltd. has bolstered its Canadian research, and now designs in Montreal all RCA TV and radio sets for Canadian sale.

The Canadian company has received a special status in this connection. "During the last several years," Vice-Pres. John Houlding points out, "five out of six of the microwave communications systems developed for international sale by our company were undertaken by the Montreal engineering group. As a result of this, the Canadian firm has been named the center of capability for all microwave production within RCA."

• **No More Branches**—Union Carbide Corp. tackled Canadianization from the executive personnel angle. UCC operations in Canada have been on a "branch plant" basis, organized as were the major U.S. divisions (Bakelite, Linde, National Carbon, and so on). U.S. citizens heading each Canadian operation reported to the division head in New York.

Five years ago UCC took a good look at the setup, began a reorganization that's still under way. Union Carbide Canada Ltd. was created, with Canadian divisions, each now headed by a Canadian national who reports to the Canadian president. The president in turn reports to the UCCanada board, made up of both Canadians and Americans. Canadian facilities are no longer

Here's the economy champ—the Ford Styleside pickup for '59.

'59 FORD PICKUPS GIVE 25.2% MORE MPG!

***Certified!** 25.2% more miles per gallon than the average of other leading pickups in Economy Showdown tests. And 25.2% means five days' driving on four days' gas!*

Now, from independent research engineers come certified facts on truck economy!

Standard six-cylinder models of all leading ½-ton pickups were put through the same series of road trials. After careful break-in and tune-up, they were tested at low speed and high . . . in simulated city traffic and door-to-door delivery.

And the '59 Fords outstripped every other make *in every test.* Altogether, they delivered 25.2% more miles per gallon than the average of all the other pickups! Here's the record—*certified* by the nation's leading independent automotive research firm:

'59 Ford Pickups' advantage

42.6% more mpg than Make "D"
31.1% more mpg than Make "I"
25.2% more mpg than Make "C"
22.0% more mpg than Make "S"
9.6% more mpg than Make "G"

25.2% more mpg than average

A 25% advantage in gas mileage mounts up fast, too! It's one gallon saved in every five. One day in five . . . *gas-free!* Over the years you own a truck, it can save you hundreds of gallons—and dollars! Get all the facts at your Ford Dealer's now!

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Send inquiry to: P. O. Box 2647, Ford Division, Ford Motor Company, Detroit 31, Michigan

Go FORD-WARD for savings

FORD TRUCKS COST LESS

LESS TO OWN...LESS TO RUN...LAST LONGER, TOO!

called "branch plants," a phrase that angers Canadians. UCCanada is now moving some division heads to new corporate headquarters in Toronto, leaving on-the-spot control to plant managers, almost all Canadians.

• **Pride of Ownership**—A particularly sore point with Canadians has been that stock in U.S.-owned companies was frequently not available to them. A few companies are now making stock in their Canadian operations available in the Dominion. Within the past two and a half years Greyhound Lines of Canada Ltd., Fruehauf Trailer Co. of Canada Ltd., Jefferson Lake Petrochemicals of Canada Ltd., and Reichhold Chemicals (Canada) Ltd., have made public offerings.

On the other hand, Ford Motor Co. recently increased its ownership in Ford of Canada from 27.5% to 75% through a cash offer for the Canadian stock (BW—May30'59, p29).

Canadian interest in Canadian operations is receiving recognition in other ways. International Harvester Co. of Canada Ltd. last year issued its first separate annual report in its 55-year history in the country. Two years ago General Motors of Canada Ltd.—while not issuing annual reports—began releasing item-by-item and city-by-city breakdowns of where the money it spends in Canada ($429-million last year) is going.

A company in the heavy industrial field, also long-established in Canada, has for the first time given a sizable chunk of charity money locally—$200,000 for expansion of a small, needy central Canadian college.

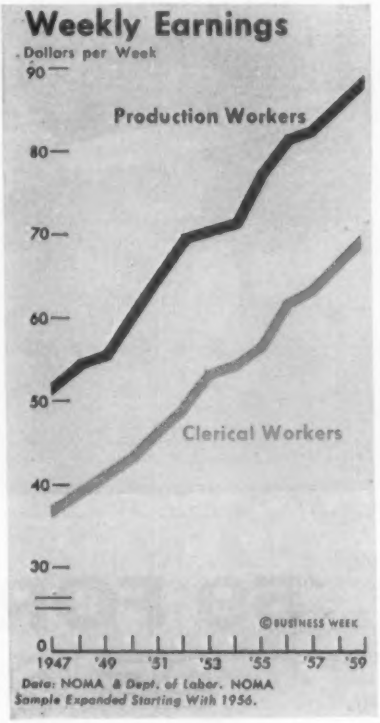
• **Ultimate**—Where all this could possibly lead, if carried everywhere to its logical conclusion, can be seen in the case of Imperial Oil Ltd., the company with perhaps the longest history of Canadianization. Though 69.9% owned by Standard Oil Co. (New Jersey), it is so Canadian that natives insist even some of its own employees don't realize it's a subsidiary of a U.S. giant.

Of Imperial's 15,000 employees, fewer than 100 are Americans. It has long been the sponsor on radio, and now on TV, of Hockey Night in Canada. In January, 1958, it sponsored a National Conference on Education, which discussed, among other things, how to rid Canadian textbooks and entertainment of U.S. influence.

• **Objectors**—There's by no means universal agreement among U.S. companies, however, that it pays to give in to Canadian desire for greater participation. Chmn. Harold Sweatt of Minneapolis-Honeywell Regulator Co. entered some objections earlier this summer at a Minneapolis meeting of the Canadian-American Committee. He went on record as saying that M-H was, after all, in business for profit and couldn't stop, before making a decision, to take into consideration the sensitivities of minority groups of stockholders in countries where it operates.

Other U.S. delegates insisted that Canada just wasn't ready for its own research facilities, that laboratories there would merely duplicate work in the U.S., that sensitivity about such things as "branch plants" was infantile.

The U.S. businessmen at the meeting, in fact, generally took the line that Canadians already have a large amount of control of business within their borders. Much of the current rash of Canadianization is merely publicizing this fact.



White-Collar Lead

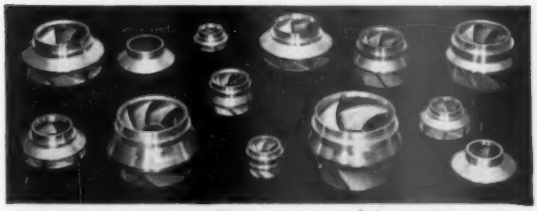
Office workers' salaries jump 84% since 1947, against 71% gain for production and allied workers.

Office workers' salaries have gone up an average of 84.2% since 1947, according to the National Office Management Assn. That tops by several points the gain of 71.2% in the earnings of production and allied workers for the same period.

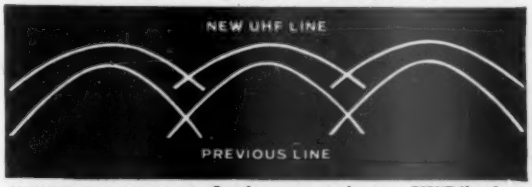
This year's national average—for 481,363 office workers in 6,762 companies—is $70. That's up 9.4% in the past 18 months. Senior secretaries today get an average weekly pay of $89, with junior secretaries getting $10 less. An even

Worthington's new

UHF* VERTICAL TURBINE PUMP LINE GIVES YOU BROADER COVERAGE, HIGHER EFFICIENCIES



BROADER COVERAGE These are some of the 36 different impeller designs in the complete UHF line. Broader coverage means you are more likely to find a pump that matches your requirements.



HIGHER EFFICIENCIES On the average, the new UHF line has peak efficiencies 4% greater than the previous line. The new line also maintains these high efficiencies over a wider operating range.

***ULTRA-HIGH FLOW**

For the first time in ten years a manufacturer has redesigned an entire line of vertical turbine pumps. More than a third of a million dollars and five years of time went into redesigning the heart of the pump—the impeller and bowl assembly. Even Worthington's engineers were surprised by the results of their efforts. The new Worthington UHF line gives broader coverage and higher efficiencies (average 4% higher).

Send for your copy of a booklet on the new UHF line. Write to Worthington Corporation, Section 24-3, Harrison, N. J. In Canada: Worthington (Canada) Ltd., Brantford, Ontario.

WORTHINGTON

higher national average is found in the pay envelopes of senior accounting clerks: $93, up 7% since 1957. The highest average for any group in any individual city in the NOMA survey is the $143 reported for tabulating machine operators in Lake Charles, La.—but since only four workers were involved, the usefulness of the statistics is questionable.

As in past years, the west-of-the-Rockies states were the highest paying, with Oakland, Calif., winning the honors as top-paying city. The average for accounting clerks there was $105; for top-ranking tabulating machine operators, $102; for senior secretaries, $100. Even a mail clerk or messenger in the East Bay area averaged $72. Shreveport, La., was another high-payer. There the average pay for such jobs as accounting clerk ($116) and expert tabulating machine operator ($115) outdistanced even Oakland. But Shreveport dropped far below the California city on the low end of the pay scale: Mail clerk-messengers in Shreveport averaged $51.

• **Wide Variations**—The NOMA survey points up the large city-to-city variations in clerical pay levels. San Francisco, for instance, pays less than across-the-bay Oakland in 20 of the 23 job classifications covered; for one job, the difference between the weekly averages is $14.

The extremes are great, of course, between the top cities of the 114 U.S. cities covered and those at the bottom of the pay pile. In Nashville, the job with the highest average salary—senior secretary—reported pay of $69 a week; that's $31 below Oakland.

• **Fringes**—Fringe benefits for office workers also went up during the past year and a half. Though the most common national figure is still six paid holidays, now 60% of the companies give more than that. Twenty-five companies (0.39%) give no paid holidays, down from 0.6% in 1957.

More companies now have life insurance and pension plans, too. The 40-hour work week is still standard, and the percentage of companies working fewer hours—26%—remained unchanged. Most companies in the survey pay overtime after 40 hours, but at least half of those with regular work weeks shorter than 40 hours do not start overtime until after the 40-hour mark.

Overtime pay in general, however, is becoming increasingly common. Only 8% of the companies in the NOMA report do not pay clerical workers overtime; in 1957, 10% didn't.

The practice of paying a bonus to office workers—in steady decline for 10 years—continued to lose favor. Only 21% of the companies in the present survey give extra compensation, compared to 22% in 1957, 25% in 1951.

MANAGEMENT BRIEFS

Studebaker-Packard Corp. has put its diversification activities on a staff basis, under newly named Vice-Pres. William D. Mewhort, formerly with Revlon, Inc., and Textron, Inc. Mewhort's department will take over the duties previously assigned to Abraham M. Sonnabend's board committee on diversification, which has been absorbed into the executive committee.

•

There's a temporary truce at Crane Co. Chmn. Thomas M. Evans and Alfons Landa, back from Europe, have decided they agree "in principle" on how to run the Chicago plumbing supply company they took control of earlier this year. One aid to agreement: a first-half report that showed earnings quadrupled over the same period last year. The Evans-Landa peace meeting came just two days after Gurdon Wattles, chairman of Electric Auto-Lite Co., which recently sold its large stock holding in Crane back to the company, resigned as a director.

•

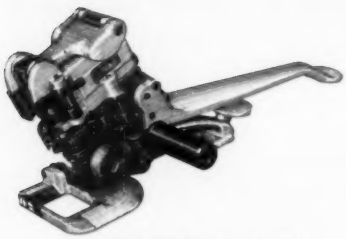
The Assn. of Consulting Management Engineers has published a small book outlining step by step what a businessman can expect when he hires a management consultant. It explains the accepted practices in securing, carrying out, and following up consulting contracts. Available from ACME's New York City headquarters: $2.75.

•

New presidents: George W. Brown at **Wagner Electric Co.**, in St. Louis, where he moves up from the executive vice-presidency into the opening caused by the death last month of J. H. Devor. Brown, whose background at Wagner has been in engineering and industrial relations, was also named head of Wagner's Canadian subsidiary . . . John C. Denton at **Spencer Chemical Co.**, the Kansas City agricultural chemicals maker. Denton replaces founder Kenneth A. Spencer, who takes the title of chairman and remains chief executive officer . . . Harry B. Henshel at **Bulova Watch Co.**, replacing John H. Ballard, who will retire. Henshel, executive vice-president since last year, will be the third president in Bulova's 84-year history.

•

The number of company-sponsored language courses for executives is up 20% for the first half of 1959 over the same six months last year, according to a survey by Berlitz School of Languages. Berlitz says French and Spanish are still the most popular languages; Japanese, Arabic, and Indonesian are growing fastest in popularity.



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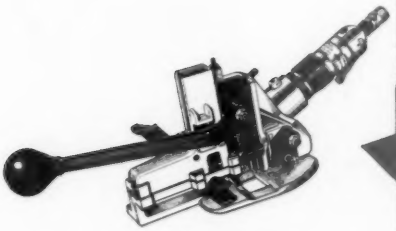
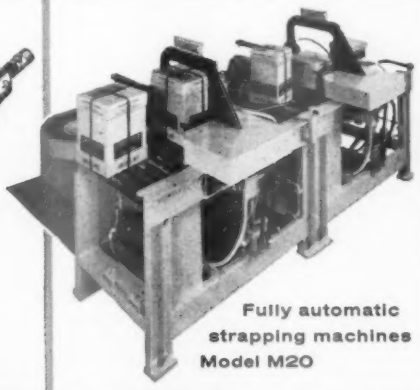
Complete line of air power tensioners PN Series



Air power portable strapping machines AP Series



Fully automatic strapping machines Model M20

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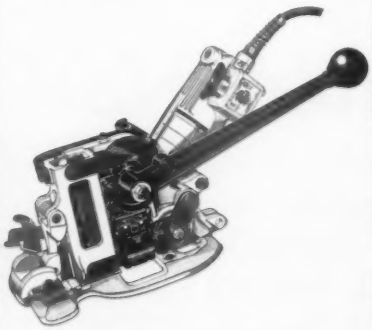
First compression strapping machines with built-in turntable for 2-way strapping. CSF Series



Electric portable strapping machines. AE Series

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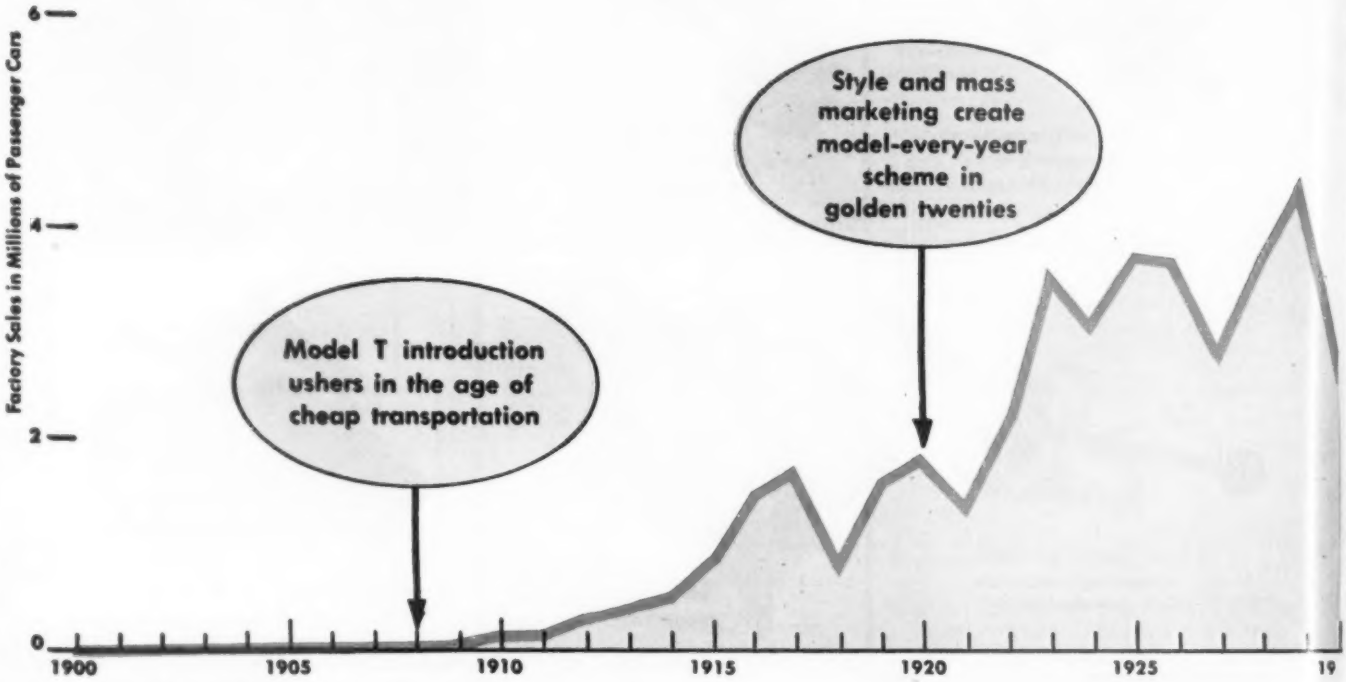
Four Times in the Past U.S. Auto Industry Took Off in a New Direction . . .



Data: Automobile Manufacturers Assn.

Detroit Enters New Competitive

The new compact cars will put pressure on every aspect of the industry—prices, standard-size makes, used cars, imports. With their introduction, somebody is bound to get hurt. What has Detroit guessing is: Who will it be?

When the auto industry winds up its 1960 model year, one of every four cars sold in the U.S. probably will have fallen in the compact-small-economy range—a group that wasn't even in the serious running a scant three years ago.

The strongest indication of this surprising statistic came when Detroit's Big Three decided to bring out this fall their own versions of smaller, lower-priced American-made cars. In short order, General Motors will introduce its Corvair by Chevrolet, Ford its Falcon, and Chrysler its Valiant. By next year, both GM and Ford expect to have additional smaller cars in production for the medium-priced field. Chrysler already has the Dart (BW—Jun.20'59,p25), and may add another.

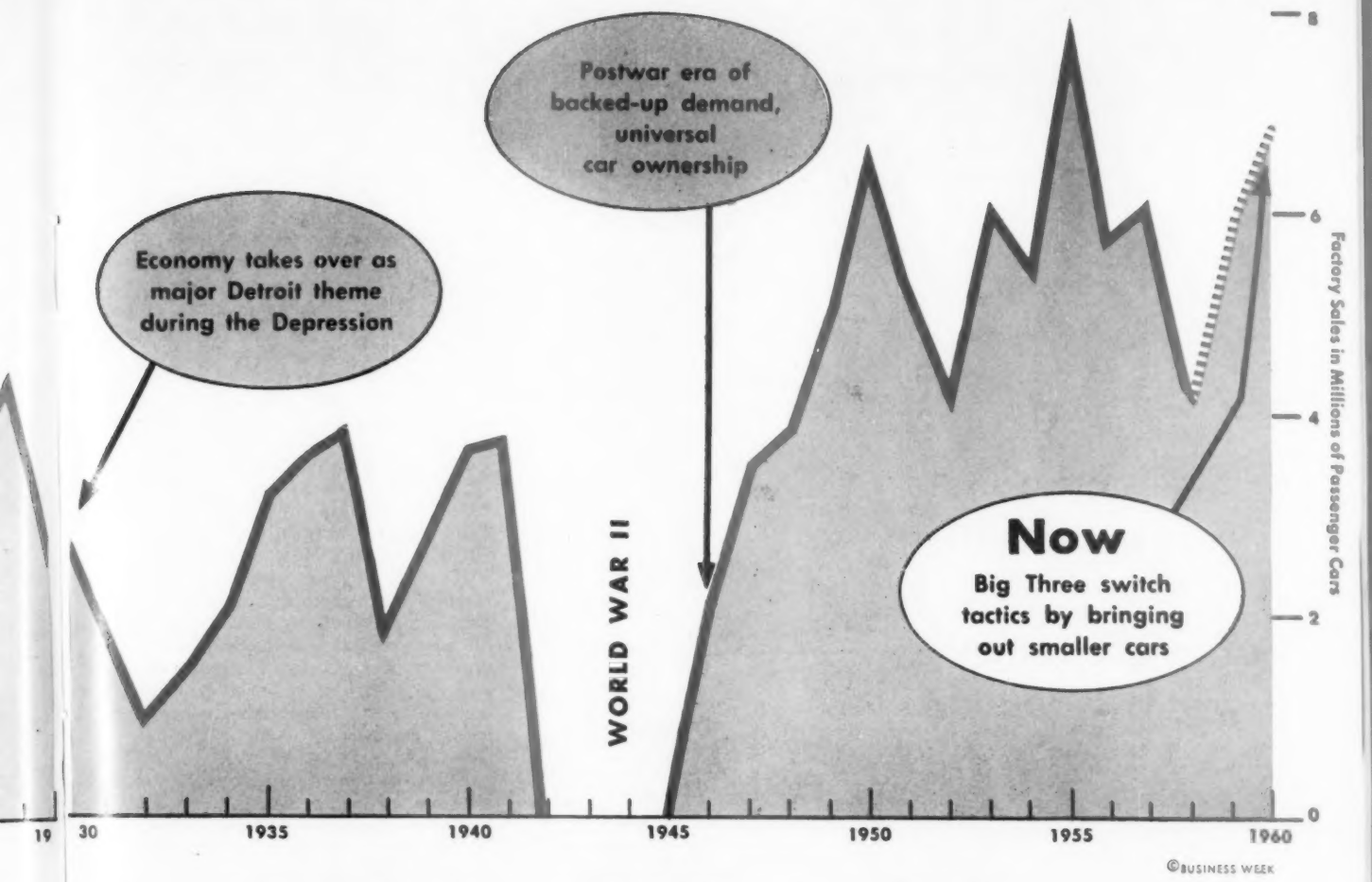
For the Big Three, this marks a sharp reversal from the big-car strategy of sales, design, and production that reached its apex in the record sales year of 1955, when volume climbed to a level that the industry hasn't been able to reach since and probably won't for another few years.

• **No Family Resemblance**—The styling of the new small cars will be completely different from that of their big brothers, with more of a Continental flavor. Lines will be clean and rounded, with a minimum of the trim that has been characteristic of Detroit products. But the cars are so proportioned that they do not look appreciably smaller—as some of the imports do. They will utilize lightweight materials and new engineering to the utmost, so as to achieve economy of operation well beyond existing U. S. cars. Horsepower will be about the same as low-priced cars of pre-World War II, but with much smaller engines.

Chevrolet's Corvair makes the biggest departure from the past. It grew out of GM's idea that when a change is required all the basic premises should be scrutinized. When they were, Chevy decided the new-type motor car should have its engine in the rear, which led to many mechanical and engineering innovations. Ford's Falcon and Chrysler's Valiant, though conventional in engine placement, also depart from accepted styling and engineering.

Each of the Big Three's compact cars will be a distinctive product—as different from each other as from American Motor Corp.'s hot-selling Rambler, Studebaker-Packard's Lark, and the imported cars. What they will have pretty much in common is price—starting around $2,000 (probably with heater) up to $2,400 as you add features.

• **All-Out Battle Looms**—Detroit is doing very little public guessing as to



Era With Its 1960 Models

where its drastic change of industry policy will lead. But just about everyone agrees that a rough competitive battle is coming, and that when the smoke clears, some familiar nameplates will be left battered or destroyed. Said one executive of a major company: "The small cars have mixed up the whole market. It will be a stew that will take a few years to settle."

• **Historic Change**—Detroit itself is full of auto executives who still haven't realized just how big a change is in the making. To grasp the scope of the policy reversal, you have to realize that this is the first time that all the major producers have gone into quantity production of a new type of car at the same time. The switch is a symptom of a broad change that ranks with the four great historic changes in the industry—changes that affected its products, its market, and the fortunes of companies both inside and outside of autodom.

After each of the previous massive switches, some well-established companies with familiar nameplates woke up to find that they had lost ground to newcomers that had themselves either established the new trends or had proved themselves better able to adapt to the changing market demands.

• **Decisive Years**—During and between these changes—over the past half-century—the automobile industry has come from almost nothing to the biggest manufacturing enterprise in the world. Sales of General Motors alone—$10-billion a year, 90% of it in automotive products—tower over the economies of many sovereign nations. Like France's Louis XIV in 17th century Europe, the automobile is the "Sun King" of the 20th Century economy. In the U. S., the industry consumes about 20% or more of almost every basic industrial commodity you can think of.

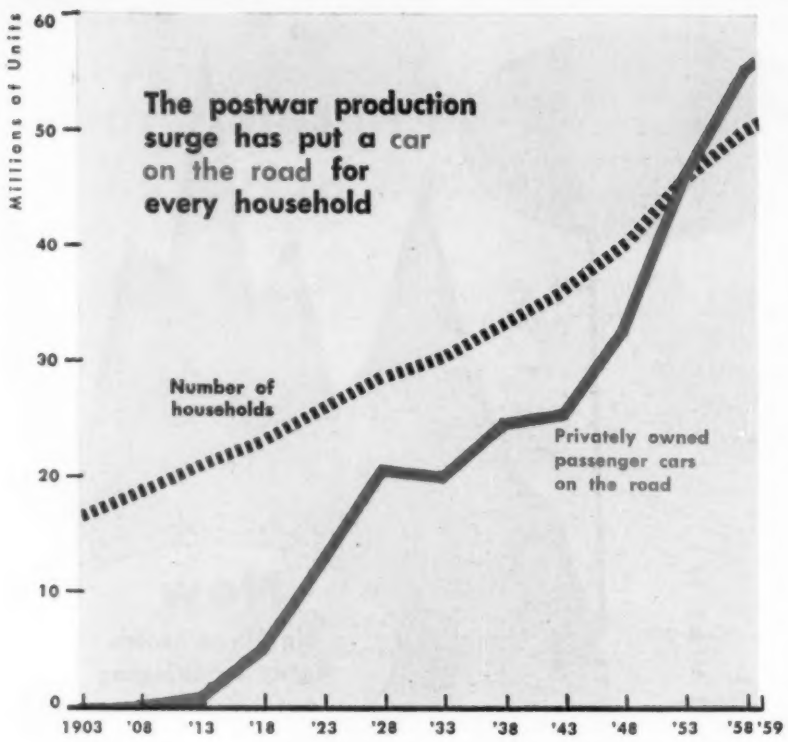
The historian of the automobile, well gifted with hindsight, can pinpoint the years of the four great changes in the development of the horseless carriage—just as he can see that 1960 is shaping up as a fifth epochal date. The earlier years of redecision were:

1908: This was the year when Henry Ford, the iconoclast, introduced the Model T and started the revolution that was to bring mass production on an unheard-of scale. A cheap car for the masses was a really new concept for the budding industry whose cars were playthings for the idle rich.

1920: By the start of the Golden 1920s, the industry had learned how to build cars; now came the period when it learned to sell them. Today's great networks of franchised dealers were firmly established; to help them sell more cars, the stress on new styling for each year's model came into being. The 1920s produced another change: The closed car began to drive out the old touring models, and the auto became a true all-weather vehicle.

1930: The Great Depression shut down on the growth of the industry. Economy became the watchword in selling—the companies that couldn't adapt to it folded. Yet cars had become a necessity—even the Okies rolled westward from desolation in beat-up jalopies.

1946: The end of World War II



Data: Dept. of Commerce, Bureau of Public Roads, A.M.A., B.W. Est.

found the industry with its hungriest market ever, sharpened by the long years of the Depression and the war's four-year hiatus in production. The industry started on the path to ever longer, ever lower, fin-tailed, high-powered monsters of the road.

Which leaves the top question: Will 1960 be added to the epochal list? Since 1955, evidence has been piling up for a much broader change than some industry people are willing to admit, even at this late date.

• **Looking Back**—First, there is the unprecedented demand for the cheaper ($1,200 to $1,700) small foreign cars, headed by Volkswagen, which began to take a recognizable share of the total U.S. market three or four years ago.

Right on the heels of the foreign cars came the unexpected success of American Motors' Rambler (and, this year, Studebaker-Packard's Lark) which George Romney, American Motors' president, says "marks the movement of the automobile into an era of greater functionalism."

In Detroit's own stable has been the public demand, far greater than expected, for cars that haven't followed the postwar design pattern—station wagons, for example, which moved from 2% of the market in 1954 to 14% last year and which, for Ford, now account for 20% of its new car sales. Ford's Thunderbird and Chevy's Corvette are other deviates that are catching the fancy of the consumer.

Finally, there is the failure of a somewhat bewildered domestic car industry to snap out of the doldrums that set in after what Detroit now realizes was the misleading banner year of 1955.

I. Out of Step

Two important events converged about that time that help explain the changes taking place in the industry.

On the one hand, a point of saturation was reached that exceeded anything Detroit had experienced before. Even at its pre-World War II pinnacle in 1929—when Will Rogers was saying that the U.S. was going broke on wheels—the industry had not attained it. In that peak year, total cars on the road represented just 77% of the country's households. Statistically speaking, almost a quarter of American families didn't have cars. Thus, the industry still had a long way to go before the automobile became the universal necessity it is today.

This big gap in the market, further widened by years of Depression and war, was filled in a burst of spending starting in 1946. From then through 1955, Detroit's assembly lines turned out more than 50-million passenger cars. By 1954, for the first time, there were more private passenger cars on the road—48.3-million—than there were households. There still aren't two cars in every garage, but by the end of 1958 market saturation was close enough to raise serious economic growth problems for the auto moguls. Detroit had finally achieved what the horse couldn't—a private means of transportation for just about everybody who wanted it.

• **Foreign Invasion**—Perhaps more important than this economic fact of life, the automobile industry, in its chrome-plated, high-powered competitive race with itself, sped away from a rapidly growing part of the mass market.

In the brief four-year period 1956-59, the small European cars—never before available in such volume—crept up on the market that Detroit had left behind. From virtually nothing in 1955, foreign car sales burst forth with 98,200 in 1956; 206,800 in 1957; 373,200 in 1958, and an estimated 450,000 to 500,000 units in 1959.

Here was striking evidence that the oft-measured American consumer was demanding something different from fin-tailed products produced by U.S. assembly lines. George Romney's crusade to push the compact car idea, represented by the Rambler, seemed hardly necessary to confirm this obvious fact.

• **Miscalculation**—Another clear sign of the times was the disappointing history of the Edsel. Right in the middle of the rise of the small car, Ford introduced the medium-priced Edsel. The strategy: Compete across the board with General Motors' line-up of brand names. Lots of market research went into the Edsel project, but it started from what now is known to be the miscalculation that the American public was waiting for a medium-priced car.

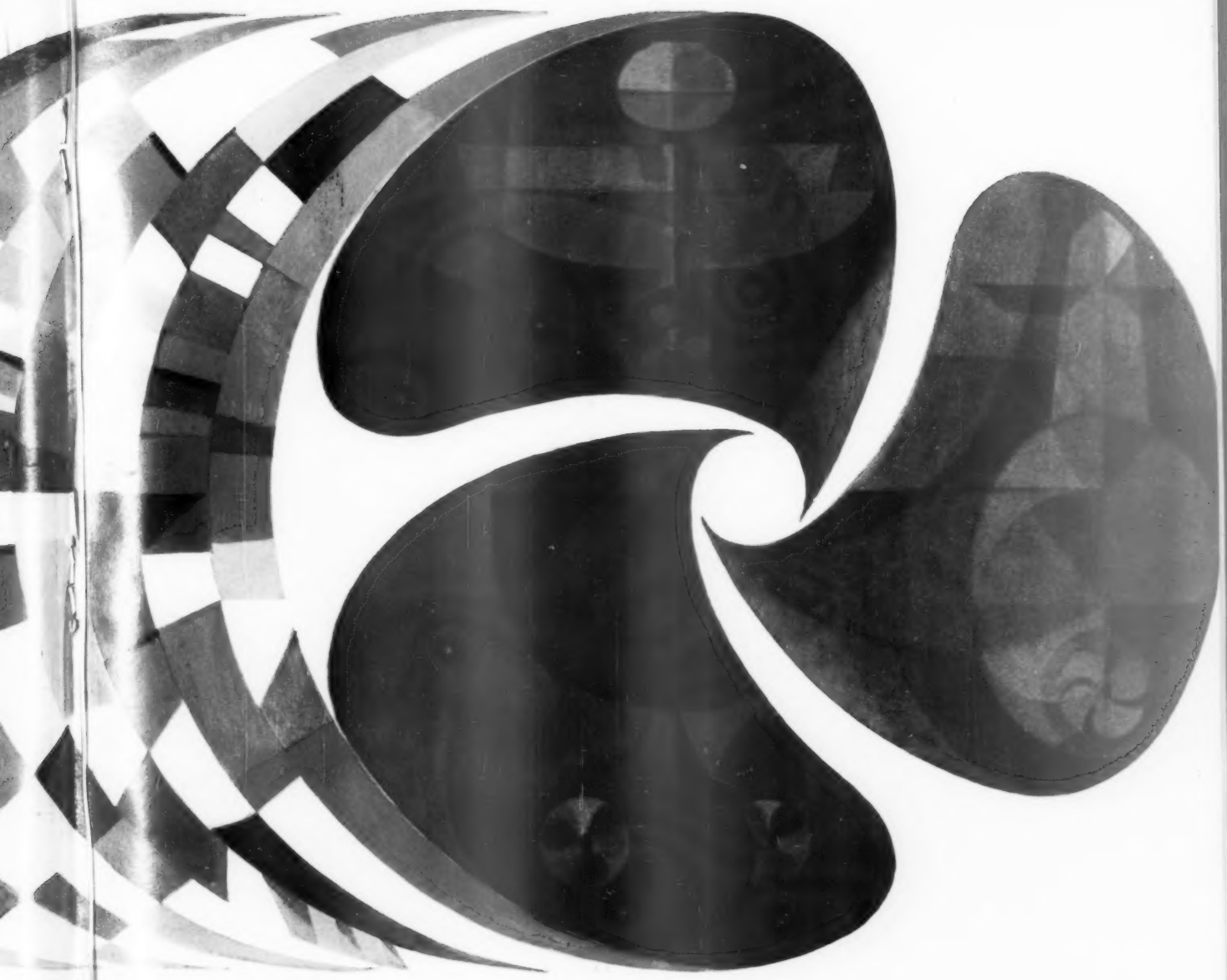
As it turned out, the American consumer greeted the Edsel with a yawn as wide-open as the car's horse-collar grill. A general reaction Edsel met: "I thought it was going to be a low-priced car."

• **Love Isn't Enough**—The consumer had changed, or at least a growing number of them had. He wanted something different. He wanted economy. He wanted a style that fit—not hit—his pocketbook and his habits. His long, exclusive love affair with Detroit and its products had ended in the great fling of 1955. It was as if a lot of consumers suddenly woke up from an impassioned daydream.

What had really happened was:

• A sudden disaffection with the price of cars in relation to the newer demands being placed on the consumer's purse.

• The first inkling from abroad that you didn't have to pay $2,500-$3,500 to get basic transportation,



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without copper . . . how few things and places.


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which many suburbanites came to realize was what they really needed.

It was no longer smart—certainly not economical—to tie up money or future earnings (in installment credit) for autos whose functional qualities, such as inside roominess and easy handling in traffic, were declining with each new model.

• **Deaf Ears**—All these trends, plus the growing demand for second cars, had been noted by Detroit's seers. As far back as 1954, researchers were telling top management that something peculiar was happening. Some executives even admitted that there was room—"maybe for one or two makes"—for a small car.

But for various reasons, Detroit policymakers staved off the irrevocable decision to change direction in the industry. For example:

• They shied away from committing themselves to the huge investment necessary to meet the market's embryonic challenge.

• They were reluctant to upset what had up to that time been a smooth-sailing ship.

• They were leery of the risk that early product leadership carries.

• Their thinking—in some cases—was conditioned by flops of the past—the American Austin, Henry J., the Willys, even the Crosley.

• Besides, domestic manufacturers had their own foreign subsidiaries which they began to import in large numbers to compete with other small-car imports.

They pooh-poohed the burgeoning success of both foreign cars and Ramblers as a revolt of the intellectuals, something no red-blooded Midwesterner ever would follow, certainly nothing that volume-geared U. S. assembly lines need fear.

• **Narcissus Complex**—It is not hard to understand how the automobile industry could get out of step with the market of the late Fifties. The masters of the motor industry were a new crop in a new era. To say they read their press clippings instead of the consumer's mind would be too harsh a judgment. Still, for years there had been docile acceptance of Detroit's idea of what an automobile should be. That was reason enough for a narcissus complex.

Besides that, Detroit was the focus of a happy prosperity. Trainloads of executives each week rode the crack New York Central Detroiter commuting between Detroit, the production capital, and New York, the financial and propaganda capital. Gaily and confidently they enjoyed their enviable success. All you needed to know about the auto industry and where it was going could be heard in the Detroit clubs or on the overnight Detroiter. The brilliance of the industry's success blotted out any shadows of change, especially since change had become so unfamiliar.

Even now, a good many in the industry disagree that there is anything more than a natural evolution going on. But always in the past an event so sharply divergent from past trends as the compact car has signaled important changes in the industry. The changes have sometimes been unexpected and always somebody has been hurt.

II. Change No. 1: A Mass Car

Take a look at 1908 and the startling changes Henry Ford wrought when he introduced his Model T. Up to then, U. S. and European auto producers were traveling hand-in-hand. Motor cars were for the well-to-do. Consequently they were big, ornate, and expensive because the number of customers was limited.

The curved-dash Oldsmobile was an exception—a small, inexpensive ($500) runabout built in volume (5,000 in 1904). But in a year or so, Olds' backers, too, insisted that the future was in big cars and Ransom Olds quit.

• **Ford's Dream**—Henry Ford broke the big-car image and turned the industry away from the European path—a fine bit of irony considering why Ford and the rest of the U. S. industry today are bringing out small cars. Ford's company, founded in 1903, had started out building only big cars (and the dozen investors in five years got back $1-million for a cash investment of $28,000), but he was convinced the motor car was a revolution for an essentially rural populace. He envisioned a car cheap enough for everybody, sturdy and reliable enough to be produced in vast quantities. Ford's first Model T was priced from $950, but by 1916 he had cut that to $345 for a runabout.

Ford's success with the Model T, of course, was fabulous. In 1909, the first full year for the model T, the industry produced 124,000 cars and more than 12,000 were Fords. In 1913, Ford put his car on Detroit's first moving assembly line and Ford built 182,000 of the industry's 462,000 cars. By 1919, the industry was assembling more than 1.5-million cars a year, and about half of them were Model Ts. One man and one car—the only kind of car he made—had unlocked a money vault.

• **Byproducts**—Out of it came other changes. The masses demanded and

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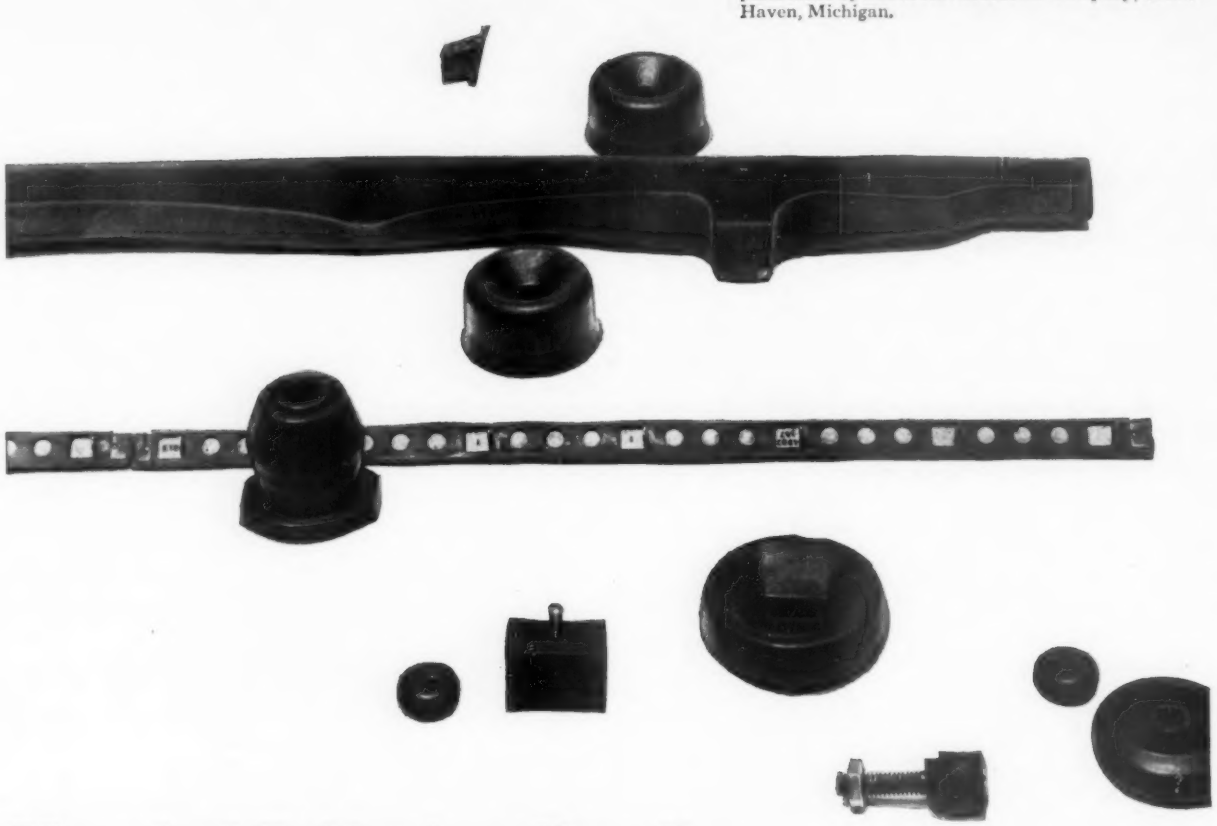

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got better roads—the first National Highway Act was passed in 1916.

The mass market Ford created also forced creation of a new kind of distribution system to replace the outmoded methods used when cars were built in small quantities. As early as 1911, Ford was signing up dealers to franchises that stipulated the dealer would sell only Ford cars. Another key provision was that the dealer must pay for his cars as they left the factory. The manufacturer early took the reins in auto distribution. By 1919, the factory-franchised system had developed pretty much as we know it today.

• **Far-Reaching Effects**—Henry Ford's flood of little black cars also created a demand for some means of enabling a prospective customer to take delivery and start driving before he had the cash.

Retail auto financing formally began in 1915 when Commercial Credit Corp. bought both retail and wholesale (dealer) automobile paper amounting to $17.6-million. General Motors Acceptance Corp. was organized in 1919 and by the early 1920s Commercial Investment Trust was in business.

Thus had Henry Ford's big idea changed the automobile business from a host of small manufacturers making a few cars a year to a vast new American industry.

III. Change No. 2: Free Choice

World War I brought a change in the automobile market that almost everybody in the business except Henry Ford quickly recognized. Ford liked to think of himself as a man of the soil, and he built his car for the workingman, interested only in workaday things. He simply had no rapport with the people who emerged from World War I.

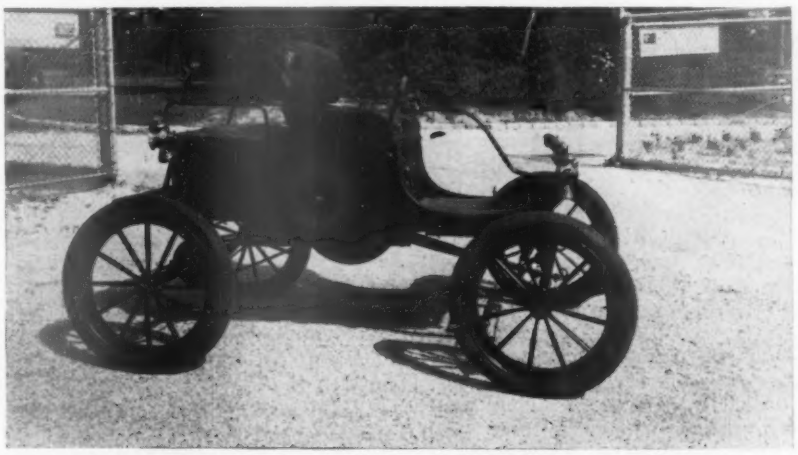
"How you gonna keep 'em down on the farm," went the song, "after they've seen Paree?" They didn't stay on the farm. In the Twenties began the two great population shifts that are still going on: from the farms to the cities and from the cities to the suburbs.

It was a period when all bets were off; if a thing had been in vogue before the war, that was reason enough to junk it now.

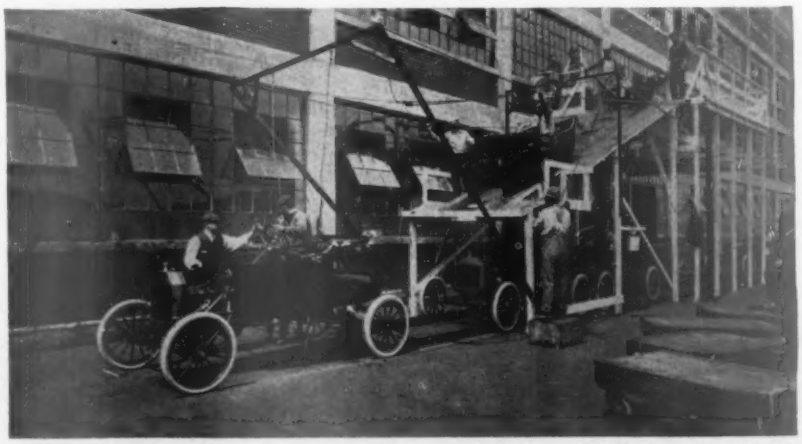
After 1920, it became easier to make cars than to sell them. The smart set in the Twenties may have discovered free love; but the other 90% of conventional Americans discovered something of more economic significance—"free choice" of spending.

What could they spend money on

FIRST COMMERCIAL horseless carriage was made by Alexander Winton, who sold it to a private owner in 1898—thus launching one of America's biggest industries.



VOLUME PRODUCTION began with the curved-dash Olds, a small, inexpensive ($500) runabout built in 1902 by Ransom E. Olds. Its output reached 5,000 in 1904.



MASS PRODUCTION of cheap transportation came with Henry Ford's Model T in 1908. Ford originated the assembly line technique, now standard in U. S. industry.

In the twenties — product variety

In 1925, Ford and Chevrolet led all makes of cars, as they do today, but with Ford far out front in sales — 1,250,161 to 341,281.

Consumers, though, had a wide choice which has steadily narrowed over the years.

The Big Ten included Buick (170,728); Dodge (167,686); Essex (119,943); Overland (117,525); Studebaker (107,732); Hudson (85,839); Nash (73,384); Star (70,339).

Following these were 43 other makes — such as the Maxwell (36,236); Oakland (34,926); Flint (14,395); Durant (4,204); Marmon (4,618); Stutz (1190); Locomobile (828).

Of the total of 53 makes, only nine brand-names survive — Ford, Chevy, Buick, Dodge plus Studebaker, Chrysler, Oldsmobile, Cadillac, and Lincoln.

Ford's Model T was priced from $345 to $520.

Chevrolet's prices in 1925: $525 to $775.

before the war—a beer, a picnic, an occasional show? In the early years of the century, it has been estimated, the average American seldom traveled more than 200 miles from his immediate neighborhood in the course of a full year. By 1919, auto passenger miles (50-billion) passed railroad passenger miles (46.8-billion).

Suddenly the restless, mobile post-war American had all sorts of wonderful ways to spend his money—on easy terms. He could have a house in the suburbs, radios, electricity and all the appliances it would run, such as refrigerators and vacuum sweepers.

• **Invitations to Enterprise**—Up to 1920, auto industrialists concentrated on production; now they could concentrate on product improvement. The self-starter was old—it had been invented by Charles F. Kettering in 1911—but nearly all the other features of today's cars came along in the Twenties. Roy D. Chapin at Hudson introduced volume production of all-weather closed cars in 1922. In rapid order came quick-drying paints, Ethyl gasoline, balloon tires, four-wheel brakes, and Walter Chrysler's high-compression six-cylinder engine, steel body, hydraulic brakes.

All these were selling tools to catch the fancy of a consumer who didn't know exactly what he wanted, except that it had to be new. Before, unless he was rich, he had to settle for the Model T. Now that he had free choice in everything else, he demanded it in cars. It was an invitation to enterprise; more new automobile nameplates appeared during the 1920s than at any time since the very early days.

The age of auto salesmanship had been born. Women became a major sales target. Ned Jordan, a newspaperman turned advertising manager who started his own auto company in 1916, built a car in the 1920s to appeal to women. In an inspired moment in 1923 he dashed off his famous ad: "Somewhere west of Laramie there's a broncho-busting, steer-roping girl. . . ."

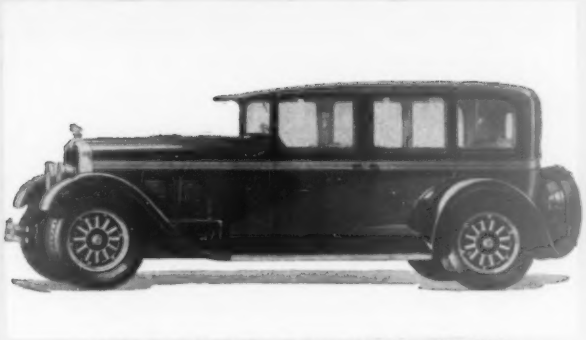
• **New Challenger**—But after 1920 it was General Motors that held the cards. GM was founded in 1908 by a man of genius equal to Henry Ford. He was William Crapo Durant. Durant's goal was a giant company that would make all kinds of cars. But, partly because Ford could still dominate the consumer of his day and partly because the market was not quite ready for the kind of enterprise Durant envisioned, GM progressed only by fits and starts. Durant lost control of GM in 1910, returned in 1915, and—significantly—was forced out for good in 1920. According to a later executive, "There were a couple of times (between 1908 and 1920) when GM might have checked out as a lot of others have done."

Through the financial and organizing genius of Pierre S. du Pont and Alfred P. Sloan, Jr., GM was able to cash in on the dream of Durant. In an era of free choice—when Ford refused to change his tactics and thus lost his markets—GM had five and sometimes more lines of cars bracketing every purse. It financed its own dealers and customers, in 1925 created the first stable policy on used cars—and through that policy gave the auto industry the trading weapon that permitted companies to bring out new models every year for repeat sales. This was necessary because the bulk of the market was among people who already owned cars.

Thus was born the new-car-every-year concept—and styling. GM had in Richard H. Grant, hired from National Cash Register Co., a man who came up with a simple concept—demonstrate cars. Send salesmen out to the customers.

In 1927, GM put Harley Earl to work as a full-time stylist, the industry's first, and Detroit was off and running in its greatest race. Ford Motor Co. was back in business after changing to its Model A. Chevrolet was in first place and Plymouth was in the field as a new competitor. In 1929, the indus-

Maxwell, medium-price, went for $1,045-$1,095.



Stutz, symbol of success, sold for $2,995.

Pierce-Arrow for the wealthy cost $3,895.

Flint held at just under $2,000.

try built 4.5-million cars, a volume that brought a warning from GM's Pres. Sloan.

IV. Change No. 3: Economy

The great joy ride was over at 10:30 o'clock the morning of Oct. 29, 1929—Wall Street laid its egg. Throughout the Twenties, Detroit—though all the time selling style, racy lines, and fancy features—was also selling the necessity of the car as a means of transportation—something that was already needed to maintain American living standards.

Detroit discovered that in the Depression. In this new, gaunt economic world, a lot of models—like Stutz, Hupmobile, Pierce-Arrow, Paige, Peerless—fell by the wayside. Production dropped to 1.1-million units in 1932. The number of cars on the road, for the first time, actually decreased. Temporarily people started to share a car or quit using their unlicensed cars.

• **Shifting Gears**—Everybody in the industry tried to get into a lower-price bracket. Packard brought out a cheap car; Ford tried a cheaper Lincoln, the Zephyr, in 1936, finally settled on the Mercury in 1938. Chrysler put Plymouths into all its dealerships and hasn't been able to untangle them yet, though it is trying this year.

GM shifted when Harlow Curtice took command of Buick and in 1934 introduced the Special (which established his reputation). After he became president of GM, Buick bumped Plymouth out of third place in 1954.

Despite the major shake-out in the industry, the Thirties weren't a complete loss for Detroit. Sales began picking up swiftly after 1932, although they never did go back to the prewar peak of 1929.

It was a preparation period for what was to come, too. Ford's V-8 put the taste of power into mouths that could not afford it before, and created acceptance of the "power explosion" after the war.

V. Change No. 4: One-Way Boom

After World War II, Detroit hastily returned to where it had left off in 1929. But never before had it had so rich a market. Consumers had come out of Depression and war—years of deprivation of the things they had wanted since the bubble burst in 1929—loaded with cash and credit. They were panting to buy, and Detroit was ready to supply this nouveau riche mass market, one so rich as to be irresistible.

New companies entered the auto business—24 new nameplates have appeared since 1946. But shortages of materials, lack of distribution facilities, and the renewed rivalry between Ford and General Motors all took a heavy toll of the Tuckers and Kaisers.

• **More Than Pentup Demand**—The success of the Big Three—with their flashy styling and high-powered vehicles—convinced Detroit moguls that it wasn't simply a pentup demand that had the industry building 6.6-million cars in 1950, biggest year up to then.

The industry became convinced that the customers wanted bigger cars, lower cars, more powerful cars, flashier cars. Woe to the manufacturer who didn't follow the trend. Chrysler itself was losing out in the race until, for 1954, it completely revamped its line to join the low, sweeping shapes of its competitors.

The Korean War with its materials controls interrupted the postwar drive that comes to a turning point this year. But by mid-1953, controls were off and production again soared. A minor dip in the economy brought strong consumer pressure for discounts—and Detroit (particularly in

the red-hot Ford-Chevy race) complied. Consumers learned to buy on price and make sharp deals.

• **Detroit's Day**—And so by 1955, the industry had everything riding in its favor. Every car (except Cadillac, Buick, and Olds) was completely restyled with many new mechanical features. Chrysler's line finally matched the trend, and Chevrolet and Plymouth had V-8 engines for the first time—with a fully automatic transmission thrown in by Plymouth as optional.

There were 26-million cars on the road four years or older, and 5.5-million of them dated back to before the war. Credit was eased with low downpayments and terms up to 36 months.

Detroit didn't expect the sales explosion of 1955—when 7.2-million cars were sold—but once it happened, the new designs got the credit. An 8-million-car year was freely predicted.

• **Setback**—But 1956 failed to confirm the breakthrough of 1955. The following year was no better and Detroit rationalized that it had overbuilt in 1955, would soon recover its former pace. What was needed was change every year, rather than the three-year cycle developed in the Twenties by GM. Having once started to make cars longer and lower, there was only one way the appearance could be changed each year.

It took either a foolish or desperate company to try to break out of the silhouette established by the Big Three, who were devoted to the belief the American consumer was panting for bigger and more elaborate cars. Independents had fallen in their race to keep up with their successful big brothers, who now had 95% of the market. Nameplates died—Packard, Hudson—and mergers failed to work the magic intended.

One of the independents, George Romney's American Motors Corp., was drowning in red ink when it began a concentrated sales push on the compact Rambler in 1957. It sold 91,000 that year. Last year, it sold 186,000 and came out of the financial woods able to pay dividends.

• **A Market Escapes**—Sales performances of both the Rambler and the small foreign cars in the not-so-good industry year of 1958 finally convinced Detroit that something fundamental had occurred to the market—beyond the simple solution of the early postwar period to build ever-bigger cars.

A market had got away from Detroit. The mass consumer market wanted free choice again—and despite chrome and two-tone power machines—it wasn't getting it from the Big Three. The policymakers, until now, didn't accept the idea that the prosperous American market has not grown up in a monolithic mold. It's now a conglomeration

RAMBLER, with George Romney at wheel, has become the symbol of a new force in the U. S. car market—compacts.

VOLKSWAGEN from Germany confounded the experts, now tops 100,000-unit annual sales volume in the U. S.

LARK, Studebaker-Packard's compact entry, established itself the first year, and put Studebaker well into black.

RENAULT of France made a successful entry into the U. S. market, now is running second to Volkswagen.

of mass, segmented markets each with its own needs, income levels, family characteristics, and each with money to spend on a product if it is tailored to its needs.

Each segment, moreover, is large enough to sustain the mass production and marketing techniques Detroit heretofore believed possible only if you made a product everybody would buy.

The consumer has proved there is no such product—unless it is soap.

VI. Change No. 5: The Compacts

An auto executive recently stared reflectively out of his office window at the big, ornamented cars streaming along a superhighway shimmering in the hot summer sun across the fields. Wistfully, he commented:

"We used to think product planning was hard, but we didn't know how hard it could be." He added: "The former trend line was clear. Bigger size, more ornamentation, more horsepower. The line just kept moving up."

He cut off the past with a sweep of his hands. "Now we don't have a trend line. We are starting at the bottom. How do you make a car different?"

That's the impact the compact car has had on the thinking of many Detroit executives. It has shredded the past market, apparently divided it into many segments. You name it, the compact cars will have an effect: exports, imports, low-medium-high-priced cars, used cars, prices, engineering.

• **Who Buys**—The general outline of all surveys of the import owners in today's market is pretty much the same: better than average income; better than average education; ownership of more than one car; potential buyer of another import when the time comes to trade; economy-minded.

What impresses the U. S. motor officials most is the heavy emphasis on economy among a group that you would think wouldn't need to economize. But auto men don't buy the idea that this is an era when cars are no longer a status symbol.

You can get Detroit executives to agree that the choice of U. S.-made cars narrowed to a point where it hurt sales. Or they became too long and elaborate. Or, among stylists, that design was on a single track moving in a direction contrary to public tastes for sharper, finer lines.

But, said one of the high officials in autodom: "Don't come in here expecting me to say that the car is no longer a status symbol. The entire reason for a smaller car is economy."

What is involved in economy, he cautioned, is "the entire cost of ownership": the purchase price, the gasoline and oil, the depreciation, the cost of repairs and maintenance, spare parts, insurance.

• **Figures**—The annual cost of ownership of most U. S.-made cars is around $1,100. The comparable cost of a Volkswagen is about $600, a spread of $500. Five years ago that spread was only $200. The difference is due mostly to higher prices for U. S. cars, plus the added equipment that has become popular during the period.

Thus, the head of a factory producing high-priced cars puts the blame on Detroit itself for not merchandising its cheapest cars. If they had, he says, producers of the low-priced models wouldn't be in their present fix.

Still, there is no illusion in Detroit that domestic compact cars can slide down all the way into the VW's cost-of-ownership bracket. But there is every hope that the annual cost of $1,100 can be cut as much as $400—though not even gossipy Detroit is saying how.

• **Sales Targets**—Detroit has laid out its compact targets—older couples who need the cars only for running about town; young couples just starting married life; lower-income families that can't ever afford a standard-size new car; and, finally, multiple-car families (now about 13% of all households)

FOREIGN IMPORTS such as this English Ford, the Zephyr, are almost certain to be hurt by parents' domestic compacts—both here and in sales to "third" countries.

that buy used cars, imports, stripped models of the low-price three.

Together these potential compact car buyers, says one researcher, add up to about 25% of the total 1960 market. If that's right and if you also accept the researcher's estimate of total 1960 sales of 6.8-million units (some like Chevrolet are talking now of 7.1-million), then 1.7-million compact cars, including imports, will be sold during the next year. This year, Ramblers, Larks, imports, and the first 1960 models of the Big Three compacts could total 1.2-million.

That makes an extra 500,000 compact cars in the 1960 calendar year. It is pretty certain that the buyers of that added half-million will switch over from another segment of the industry.

What has nearly every auto executive in Detroit teetering on the edge of his leather chair is the simple question: From what segment?

VII. Who Gets Hurt?

Foreign manufacturers are almost certain to be hit, and from two directions: sales in the U.S., and sales to "third" countries.

In 1957, for the first time, the U.S. imported more passenger cars than it exported. In the postwar period, Detroit could regularly count on shipping abroad some 200,000 cars each year. Last year, the figure was only about 126,000 and this year it will probably go down to 100,000.

This loss of foreign markets has come from (1) prices too high ($8,000-$9,000) for foreign markets; (2) products unfitted to the highway demands in other countries—too big, too costly to operate; (3) import restrictions on U.S. makes; and (4) the rapid growth of postwar production abroad—the rest of the world made more cars in 1958 than the U.S., 4.4-million to 4.2-million—that has enabled foreign firms to fill demand formerly left to Detroit.

But with its smaller cars, Detroit now believes it will be able to compete abroad again, perhaps not in Europe, but certainly in South America, Africa, and Asia. Thus foreign makers are bound to feel the compact car pressure in "third countries."

They may also be hit here. Detroit is betting on an innate "buy-at-home" emotion in Americans. Although this has waned in the postwar period, it could be revived by strong advertising and promotional images created by the compact car campaigns. In fact, industry spokesmen freely predict that import car sales have reached their zenith. Importers don't agree.

• **Low-End Lines**—Just how badly Chevrolet, Ford, and Plymouth will be hurt by compact cars is a question. They'll lose some sales—especially in the low-end of their lines. The new compacts will be priced slightly above the lowest of the Big Three standards, but that will be offset by economy of operation and novelty.

What might happen is that Chevy, Ford, and Plymouth will cut the number of models, concentrate on the plusher series. The same dealers will handle the compacts, so they won't be shortening their market span.

How about the Rambler and the Lark? Both are counting on a head-start and the fact that Big Three dealers will have a marketing schizophrenia extolling the merits of compact cars while trying to upgrade customers to the flashier standard-size models.

• **Middle Line**—The traditional medium-priced cars—a better tag would be "middle-line"—may be the most severely affected by the new type of vehicles. They've already been clob-

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bered as the Chevies, Fords, and Plymouths in the postwar era have built increasingly fancy, higher-priced cars such as Chevy's Impala. Four or five years ago, the cars historically labeled medium-priced took a little over 40% of the market. Last year, those same nameplates (plus Edsel) held scarcely more than 25%.

So the Big Three middle-line divisions will have to establish firmly a product image that says their brand is something better than a super-equipped low-priced car—such as Oldsmobile and Pontiac have done. Then if they can lower the price at the low-end of the line without hurting that image, the middle-line division managers have a real weapon against the low-priced three.

Finally, the middle-line manufacturer will need a compact car to offer his dealers. Chrysler is going to use the Dart for that purpose to help Dodge dealers, and both Ford and GM will offer one for the 1961 model year.

The middle-line's best defense is expressed by one maker: "I don't think everybody is interested in economy." Certainly the American market for motor cars will never be populated solely with small, economical cars.

But the squeeze on the middle-line cars will be real.

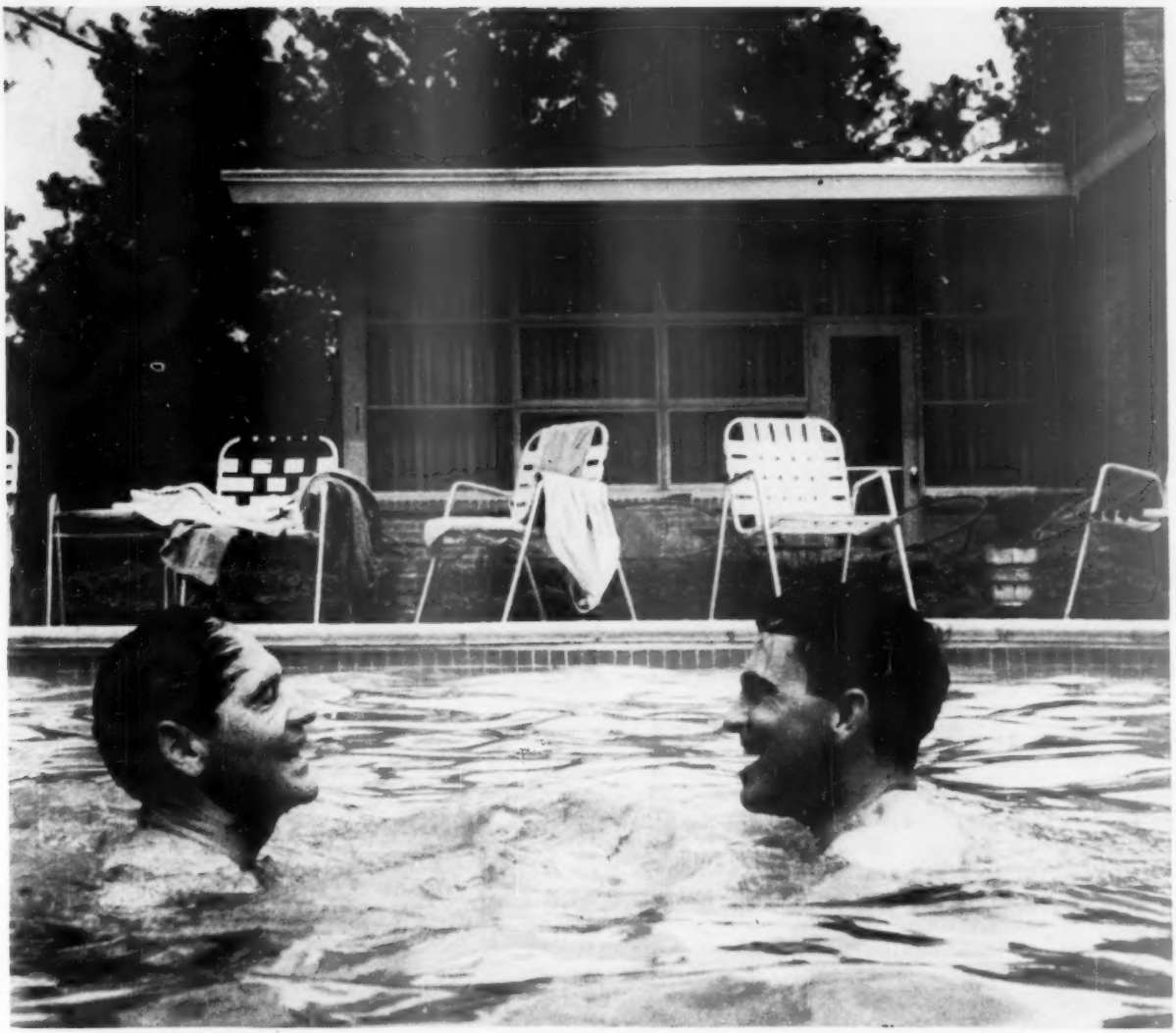
• **Luxury Lines**—As far as the luxury market is concerned, Cadillac as the leader stands pat on the special market and success it has carved out for itself, with no direct effect from compacts. Others think Ford's Thunderbird—a four-seater now with a 113-in. wheelbase—is a forerunner of compact luxury cars.

What does concern Cadillac and just about everybody else in the industry is the compact car's effect on used car prices.

• **Used Cars**—For years, the standard argument in Detroit against a smaller car was: "We already have the best buy for the man interested in economy. It's the late-model used car."

If the auto moguls really believed that, it was an astonishing example of self-delusion. True, someone else has already paid the heavy depreciation when you buy a used car; but its operating cost is certainly no less and probably is higher. So it has never been a true economy car in the sense the industry is promoting the compact vehicles—which, after all, have the prestige of being new.

To keep his used cars moving in competition against compact new cars, a dealer will have only one tactic: Cut the price. That, say Detroit seers, is precisely how the compact cars will affect the used market—with the principal victim the long-suffering medium-price brands. Severe price cuts are expected for all brands of used cars—



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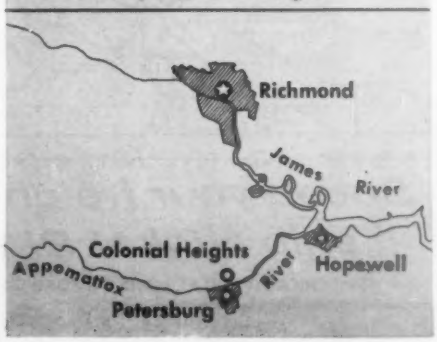

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from the bottom up to the Cadillac.

When that happens it will be a pebble in the pond. All prices will be under pressure.

VIII. Who Gains?

There's one sure thing about the compact cars. Their acceptance by a sizable number of car buyers rescued American Motors and Studebaker-Packard from what seemed almost certain disaster.

This fact may be a guide to what happens from now on. In most of the postwar period, the automobile market was dominated by a single basic type of car—and to stay in the race, it appeared, you had to keep up with demands for more horsepower, longer, lower, bigger bodies.

Now, as foreign cars and the Rambler and Lark have shown, there is plenty of room for other concepts of design. Thus, the segmented market that has emerged has given smaller producers—both here and abroad—a chance to survive against the Big Three.

What happens now that the Big Three are picking off part of that market is anybody's guess. The market for the smaller economy-type vehicle will have to grow larger than the expected 25% of the total next year to accommodate all the producers.

How big is it likely to get? George Romney, who was the first U. S. auto maker to bet—and win—on a market for his kind of car, is now making a new prediction. Shortly after the Big Three made their announcements about compact cars, Romney predicted that by 1965, half of the cars sold would be compact.

Others in the industry will argue that that estimate is too high, but certainly if the Big Three put any push at all behind their smaller cars, the market will be an expanding one. Perhaps never again will any single design concept grab 90% of the auto sales. But as the entire market gets bigger, each of the varieties of cars being made available to buyers can exist on smaller percentages of the total.

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AUSTERITY in Buenos Aires doesn't show much on the surface, but it's hitting workers hard with higher living costs.

POLICE in Buenos Aires and other cities are on the alert to cope with labor strikes.

PRICES in shops are at record high because of reduced imports and the end of subsidies.

Belt-Tightening on the Pampas

Argentina's austerity program may pull the country out of the economic aftermath of Peron's spending spree.

Argentina today is a nervous, gloomy country.

The pessimism reflects a deep-seated lack of confidence in the constitutional government of Pres. Arturo Frondizi.

Last year, Argentines voted Frondizi into office in a landslide victory. Now he is little more than a figurehead.

The country is placing its hopes for a brighter future in a new man, Economics Minister Alvaro Alsogaray (picture, right). His main job: To put across the austerity program that Frondizi initiated last December.

• **"Moral Crisis"**—To U.S. businessmen, Frondizi's loss of political support may seem strange. The president—from a distance—has appeared to be a courageous politician.

He has pushed an open-door oil program to get swift outside help in developing Argentina's large oil reserves. That in itself is a startling move, in view of the country's traditional suspicion of foreign oil companies.

More important—in terms of Argentina's recovery from the economic stagnation that dictator Juan D. Peron left behind—Frondizi has begun a belt-tightening program for his country. The aim is to check inflation, cut imports, boost exports, and eventually spur industrial expansion.

Yet Argentina—as top officials and businessmen in Buenos Aires will tell you—is now in a "moral crisis." Basically, the trouble is that Frondizi has spent too much of his time maneuvering politically.

• **Austerity Program**—You would expect Argentines to resent austerity in any form. Under Peron, the country went on a spending spree. But handed an austerity program, most Argentines waited for the president to place the economic issues squarely before the people. He didn't.

Over a month ago, badgered by the armed forces and political opponents, Frondizi reshuffled his cabinet. He put Alsogaray in the top economic spot. Since then, the economics minister has tried—with some success—to put austerity on a crash basis. Through frequent TV appearances, he has bluntly told Argentines what to expect.

Alsogaray says that the country will stick to austerity until the end of winter. Then—he hopes—the economy may begin to hum again.

Though Alsogaray is the No. 1 leader today, Argentines don't seem to want to

BOSS of austerity program, Economics Minister Alsogaray, says: "My first job is to sell the program to the public."

EXPORTS of wheat and meat are improving, and helping to bring Argentina's trade back in balance for the first time in years.

unseat Frondizi. For one thing, there's hardly any politician (as Argentines readily admit) capable of replacing him. Beyond that, the overthrow of Frondizi would undermine Argentina's attempt to reestablish constitutional government—after the years of Peronism.

I. Face Value

On the record, Frondizi's efforts to rebuild the economy don't look half bad.

Oil output is up 31% for the first five months of this year, compared to the same period last year. So far, U. S. and other foreign oil companies have pledged $535-million in fresh capital to help Argentina's oil program.

YPF (Yacimientos Petroliferos Fiscales), the state-run oil monopoly, still needs a lot more money for the oil program. But many observers agree that Argentina may achieve oil self-sufficiency by 1961, as YPF's management has predicted. That would eliminate one of the biggest drains on the economy—an average $198-million spent yearly for imports of foreign crude.

On the austerity front, the government has made some headway:

• By freeing the peso from a pegged rate, the government has put more money into the pockets of farmers and ranchers. Peron used to take a large slice of export earnings from farm goods to subsidize new industry.

• The combination of freeing the peso and slapping surcharges (and special "deposit requirements") on imports has slowed the influx of foreign equipment and raw materials. For instance, production costs at Industrias Kaiser Argentina's Cordoba plant have soared 150% in the past six months because of higher prices for imports.

• The end of state subsidies for transportation, electricity, telephones, and meat has hit consumers hard. For example, secretaries in Buenos Aires who used to buy lunch for 10 pesos now bring it from home.

• **Shortcomings**—Even so, Frondizi's critics can list all sorts of things that have gone wrong in the austerity program. Just after inauguration, the president granted a 60% across-the-board wage increase for workers. That set a bad tone for the impending anti-inflation program.

Then, before the elections, Frondizi had promised to restore the legality of the Peronist party. He has not kept the promise. Thus, out of Argentina's 4.5-million work force, some 70% are disgruntled Peronistas who oppose almost every austerity measure.

More important—say many critics—Frondizi did not try to cut the government's swollen deficits fast enough. He waited four months to stop the old "export guarantee" system. He hardly touched the pivotal problem of some 1.8-million civil servants on government and municipal payrolls—until Alsogaray took the reins. And the military, numbering around 220,000 men, still gets 30% of the budget.

PRES. FRONDIZI'S austerity program is opposed by workers, who want wages to keep pace with soaring prices.

II. On a Tight Rope

The military's size is only one example of the longstanding troubles in Argentina that would tax the abilities of any political leader.

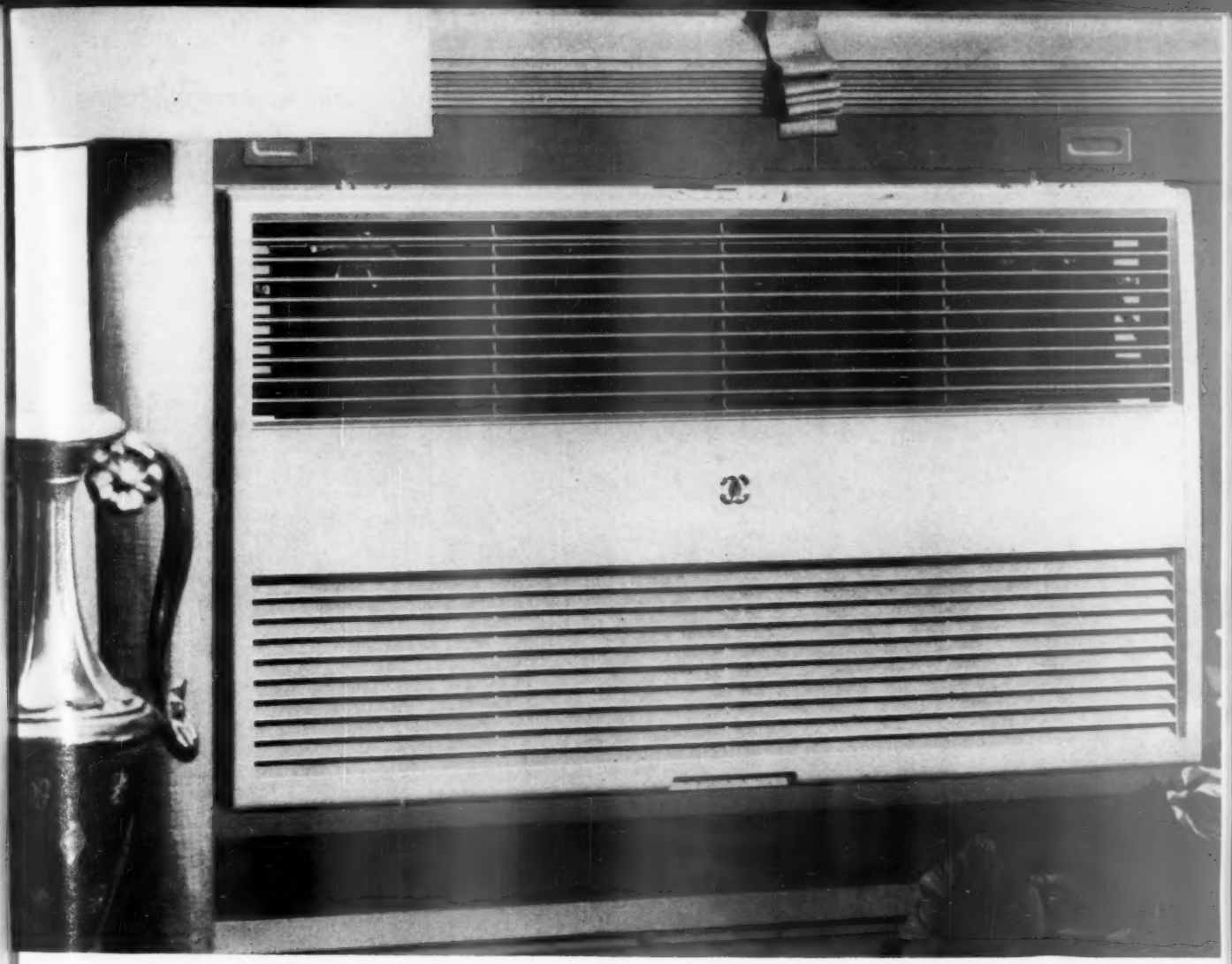
For one thing, the government must keep on good terms with the military (80 generals and some 15 admirals). Actually, the armed forces have served as a balancing force in recent years. When Peron lost political backing, the military threw him out. Similarly, when Frondizi appointed too many officials with Peronist sympathies, the military forced him to install new men.

At the moment, most of the generals favor austerity—but without continual concessions to the old Peronistas.

Yet the military is not entirely without self-interest. It wants the government to cut expenditures, but at the same time wants plenty of money for equipment and training.

Another point of conflict is the government's aim of eliminating many state enterprises. Yet these state companies frequently are the place where retired generals find top jobs.

• **Bog Down in Industry**—As for industry, most management consultants in Buenos Aires point to gross inefficiencies in the operation of both foreign-owned and domestic private companies. Argentine industry is still young. Because of that, many companies continue to be run by owner-



Carrier puts the chill on fuel costs...with coal

Air conditioner manufacturer uses coal for low-cost steam

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". . . the workers still cling to the symbol of Peron . . ."

(STORY on page 80)

managers raised in the old European tradition of low volume and high prices.

There's little sense of competition in Argentine industry. As a result, productivity in most companies has hardly improved in the past decade. One place where there's real efficiency—say consultants—is in the meatpacking industry (largely U.S.-owned).

• **No. 1 Trouble**—Labor, of course, is Argentina's volatile troublemaker. The recognition that Peron gave workers was long overdue—most Argentines concede. But because of mismanagement of the economy under Peron, workers' buying power has risen only a small percentage in the past 15 years.

Nevertheless, since Peron's fall, workers have set a high goal for themselves: A middle-class status similar to what you see in the U.S. Right now, the goal is out of reach, for the Argentine economy cannot support that kind of living standard.

The worker finds that most goods are far beyond his means. In greater Buenos Aires (where roughly a third of Argentina's 21-million people live), a Westinghouse refrigerator costs around $365; a Columbia TV set, $412; and a Norge washing machine, $194. Imported cars can run as high as $22,000.

Along with this, the workers still cling to the symbol of Peron. They admit there is only the slimmest chance for his returning from exile in the Dominican Republic. But they eagerly justify everything he did during his 10 years and point to the inefficiencies of the Frondizi government.

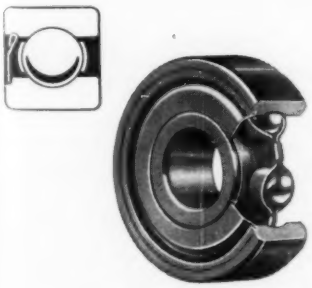
• **Taste of Victory**—The workers, while having good cause to complain about the soaring cost of living under austerity, don't seem to be in a mood to tighten their belts. That's partly because they see manufacturers passing on to consumers any rises in costs and making few apparent sacrifices. But also it's because the workers already have won many advantages—and want more.

As an example, take a secretary working for a textile plant. She gets two weeks' sick leave, two weeks' vacation, two weeks' off (with pay) to take exams for a night-school course, 4½ months (with pay) for pregnancy, a 50% salary bonus for certain increases in plant output, and a plethora of legal holidays.

As some observers see it, the problem that Frondizi inherited comes down to one thing: Argentina's political immaturity. Until the democratic processes work more smoothly, the country needs a strong executive to take clear action in coping with the economic mess. END

Photo: Courtesy Westinghouse Electric Corp.

N/D ball bearing design cuts vacuum cleaner motor costs 21¢ per unit!



Extra small single row, ball bearings with shields are capable of resisting combined radial and thrust loads. They offer accurate positioning of small shafts requiring bearing bore diameters from 4 to 9 mm.

When a leading electrical manufacturer sought ways to lower production costs of his vacuum cleaner line, he called in the man from New Departure! His N/D Sales Engineer thoroughly studied the vacuum cleaner electric motor bearing application, and suggested a design modification using smaller ball bearings . . . New Departure high volume prelubricated, shielded bearings. These smaller ball bearings accounted for a 21c per motor savings in vital part costs, while improving quality and maintaining original high efficiency. What's more, extensive testing in New Departure laboratories proved the ball bearings provided quiet motor operation, and gave accurate long-life positioning of rotor shaft under all load conditions and mounting positions.

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In Business Abroad

• • •

Japanese Bask in 8% GNP Rise, But Government Sees Trouble Ahead

Japan's businessmen (BW—Apr.18'59,p102) are in an optimistic mood—and well they should be.

Exports during the first half of this year were up 10% over the same period in 1958. **Foreign-exchange reserves are over $1.2-billion, and still rising.** Another rich harvest—for the fourth straight year—seems almost certain. Gross national product should rise at least 8% this year.

But in its annual white paper, just issued, Japan's Economic Planning Board sees some troubles ahead. **The U.S. market has been the main prop for Japan's fast-rising exports—the board says—but Japanese sales here may be reaching a ceiling.** The board also warns that despite the drop in Japanese export prices, West European countries have taken a big bite out of Japan's markets in Southeast Asia. The real danger sign is that the West Europeans have boosted exports of heavy machinery, chemicals, and automobiles, while Japan has continued to raise exports mostly by selling textiles and light consumer goods—both targets for complaints from many countries, including the U.S.

• • •

West European and U.S. Capital Thaws Toward Nasser's Egypt

In the aftermath of the 1956 Suez crisis, many U.S. and West European companies shunned new investments in Egypt (part of Pres. Nasser's United Arab Republic). But recently the attitude has changed. Some typical cases:

• **Italy's Fiat** is negotiating to build a $17-million auto plant that will be mostly financed by a group of top Egyptian investors.

• **Three Swiss pharmaceutical companies**—Ciba, Sandoz, and Wander—are jointly building a plant to produce drugs that Egypt now is importing.

• **Several British companies** may sell $12.5-million worth of diesel locomotives and electrical equipment to Egypt, with at least part payment in Egyptian cotton.

• **An unidentified U.S. company** has agreed to give money, machinery, and technical advice for the construction of a plant to produce short-diameter pipe. The plant is one of the projects of Egypt's Five-Year Industrialization Plan.

• • •

Brazil Hopes New Foreign Minister Can Break Stalemate on IMF Loan

Brazil has election fever—even though presidential elections are a year away. That's one reason why Pres. Kubitschek feels his government can't go along with the stiff austerity program recommended by the International Monetary Fund. A $300-million loan package from the U.S., requested by Brazil, largely hinges on approval from the IMF.

Yet, in pre-election reshuffling of his cabinet during the past two weeks, Kubitschek has not followed an ultra-nationalist line. Brightest sign is his appointment of Horacio Lafer as foreign minister.

Lafer is a rich Sao Paulo industrialist who knows and likes the U.S. As finance minister eight years ago, he negotiated over $500-million in loans from the World Bank and Export-Import Bank. **He also helped set up the joint U.S.-Brazil Economic Development Commission and the National Economic Development Bank.**

Rio observers expect Lafer to play a key role in breaking the continuing stalemate over the loan package.

• • •

British Companies Weigh Investments In Castro's Development Projects

Despite political uncertainties in Cuba, some British companies are looking into possible investments in projects sponsored by the Castro government (BW—Aug.1 '59,p70).

The government wants to set up a copper-smelting plant, a 15,000-spindle textile plant, a fish-canning factory, and a cement plant. Already, a new company called Cuban-British Development Agents, Ltd., is considering extensive credit to help the Cuban government finance this $50-million package of projects. Several other British companies recently have discussed participation in hydro, irrigation, and port projects outlined by the Cubans.

• • •

Austerity Bears Fruit for Chile With $282-Million Foreign Loans

Chile's new government, headed by Pres. Jorge Alessandri, seems to be making progress in putting the inflated economy on a businesslike footing.

Because of the country's serious efforts in following an austerity program, Finance Minister Roberto Vergara won $282-million in foreign loans and credits during a two-month swing through Western Europe and the U.S. **The $132-million from Washington and from U.S. banks will be used for public works, development plans, equipment for Chilean companies, monetary stabilization, and payment of old loans contracted by the former Ibanez government.** From West Germany, Chile got a $100-million package of credits to finance long-overdue improvements in railroads and port facilities.

Beyond that, France granted a $50-million credit to cover purchases of equipment and machinery. It also agreed to buy 120,000 tons of nitrate annually over the next eight years.

To bolster trade, the Chilean government hopes to boost copper exports—and also exploit iron ore deposits, just as Venezuela has done.

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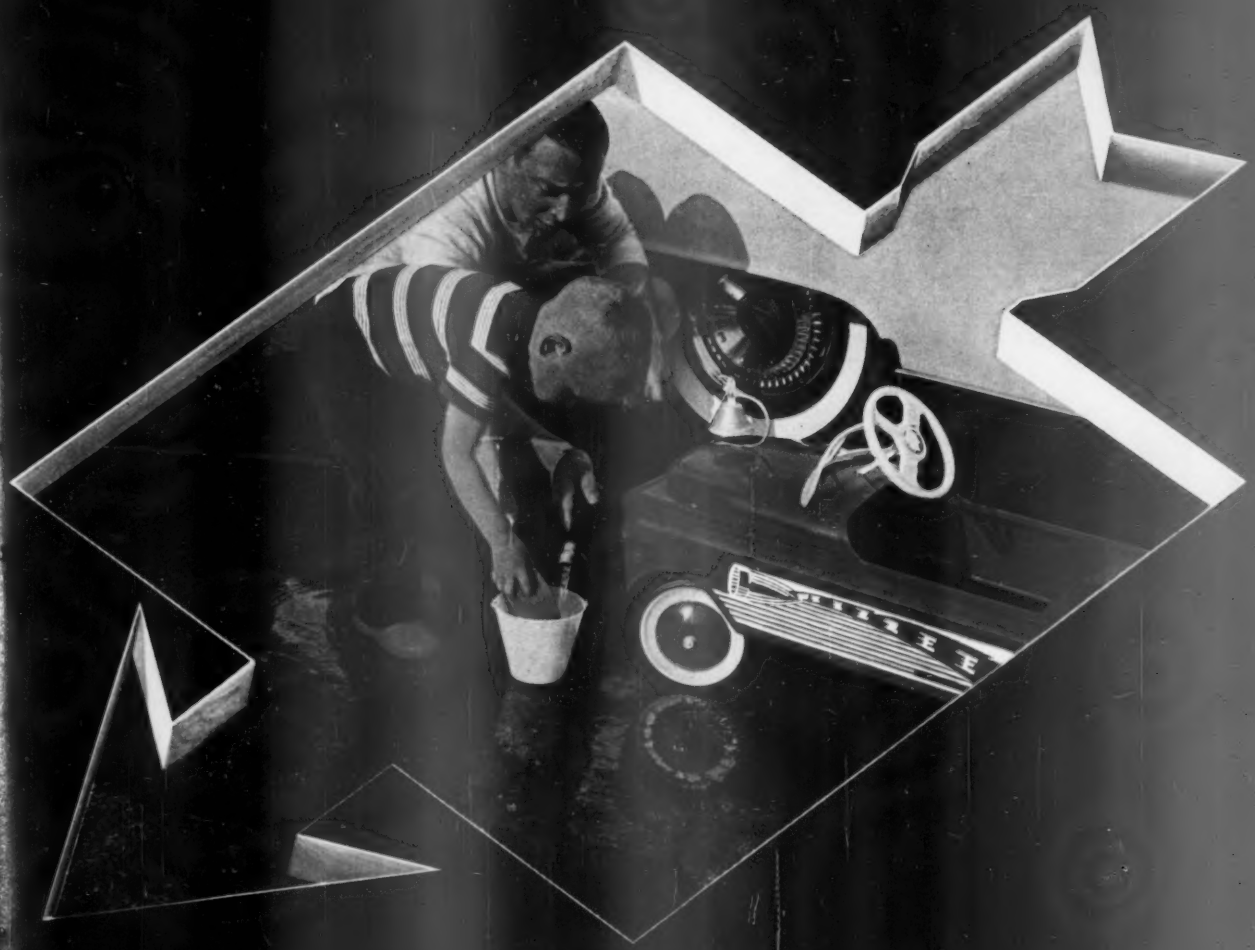

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INTERNATIONAL OUTLOOK

BUSINESS WEEK

AUG. 8, 1959

Pres. Eisenhower's exchange of visits with Soviet Premier Khrushchev (page 26) won't alter basic conflicts between East and West. But the face-to-face talks between the two leaders—first in Washington, then in Moscow—may lay the groundwork for an early settlement of the Berlin crisis and an agreement on nuclear tests. Beyond that, these two-power summit meetings are likely to ease tension in dealings between Washington and Moscow.

Eisenhower now will be in the driver's seat in formulating U. S. policy toward Russia. That's obvious in view of his key role in upcoming talks.

His first job will be to close ranks with our allies in Western Europe. When he flies to Europe late this month, he'll go over the ground he expects to cover with Khrushchev.

France and West Germany are concerned primarily with the Berlin crisis. They'll ask Eisenhower to stick with a tough position. The British are more flexible on Berlin—feeling that the important thing is to keep the Russians talking. London isn't much worried by the fact that the Geneva foreign ministers' conference adjourned this week without results. The British figure the Berlin issue has been put on ice for the rest of the year.

Eisenhower won't have an easy time in Western Europe—at least, not with Pres. de Gaulle and Chancellor Adenauer.

On the one hand, these European leaders know that the big issues can only be settled through U. S.-Soviet agreement. Yet they don't want Eisenhower to negotiate bilaterally for the entire West in his talks with Khrushchev.

Prime Minister Macmillan, of course, warmly favors an Eisenhower-Khrushchev meeting. He plugged for that months ago. Now he sees the U. S. accepting his view of how to deal with the cold war.

Handling de Gaulle will be Eisenhower's toughest job. The French leader is demanding full equality with the U. S. and Britain in basic Western decisions. He also wants to make France a member of the "nuclear club" (U. S., Britain, Russia). The U. S. so far has refused to help France develop nuclear weapons.

De Gaulle is complaining, too, about U. S. policy on Algeria. He wants Washington to back his tough stand on Algeria—without reservations. But despite long-winded negotiations, Washington has continued to take a middle course—neither supporting nor defending French policy on Algerian rebel claims for independence.

Time is running out, though. The next meeting of the U. N. General Assembly will bring the Algerian problem to a head. The assembly probably will favor Algerian independence by a two-thirds majority.

—•—

On his visit here, Khrushchev is sure to talk about U. S.-Soviet trade. He would like to buy U. S. machinery and equipment, especially chemical and plastics plants. That would help with his Seven-Year Plan.

Eisenhower undoubtedly will lend a sympathetic ear. He tends to favor East-West trade in principle, probably feels that it would be a good thing to have more normal trade relations with the U.S.S.R. But he won't

consider any basic change in U.S. policy unless Khrushchev shows he is ready to "normalize" a lot of other things.

If Eisenhower should decide to encourage U.S. exports to the Soviet Union, here are some of the ways he could do it:

- **Liberalize the U.S. "positive list"**—a schedule of items that can't be shipped to the U.S.S.R. (It now includes most of the things Khrushchev wants most.)
- **Grant Soviet export goods "most favored nation" tariff treatment** so that Russian manganese, for example, doesn't carry a 20% higher price tag than manganese from other suppliers.
- **Get Congress to lift our import embargo** on certain types of Russian goods—crab meat and seven types of fur.
- **Get Congress to amend the Johnson Act** so that Moscow could obtain commercial credits of more than six months. Such credits are barred now until Moscow pays $300-million of U.S. claims in settlement of wartime lend-lease.

—•—

Continuing political ferment in the Caribbean is catching Latin America's attention. That's the main reason behind next week's meeting of 21 foreign ministers (including U.S. Secy. of State Herter) in Santiago, Chile.

In recent months, Cuban-based rebels have invaded Panama, Nicaragua, and the Dominican Republic.

Cuban Premier Castro is the real spark for these revolutionary moves —and for the Santiago conference.

He probably will attend the meeting (though he's not Cuba's foreign minister). At first, he hinted he might not. But a Cuban boycott of the meeting would hurt Castro's prestige.

—•—

India's Communists are taking a licking in the state of Kerala.

After months of chaos there, Prime Minister Nehru has forced the Red government to resign. New Delhi will run Kerala's affairs until new elections—probably at yearend.

Communists will have a hard time marshaling public opinion to their side—if they try to stir new trouble. Indians feel the Kerala incident has "torn off the Communists' mask of respectability."

The ruling Congress Party would like a showdown with the Reds. That would justify any official measures to outlaw them. But the Communists look as if they now plan to sit on the sidelines.

—•—

The West has new worries in Southeast Asia. Communist rebels are warring with the pro-West government in the tiny kingdom of Laos (formerly part of Indo-China). They are getting help from nearby Communist North Vietnam.

Communists probably are only probing soft spots in our position in Southeast Asia. For one thing, there's unrest in Laos over purported irregularities in the U.S. economic and military aid program.

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Philip L. Sherman, Breck Traffic Manager (right), frequently checks random shipments. The impact recorder he is showing Mr. Breck fits in any carton, can be carried in any part of the van where impact must be measured.

In addition to smooth shipping for glass-packaged Breck Preparations, Traffic Manager Sherman uses Flexi-Van for speed. He gets second-morning delivery in Chicago, has been able to cut shipping expenses to Chicago about 30%.

"We began Flexi-Van shipments from our Springfield, Mass., plant to Chicago as soon as service was started," says President Edward J. Breck of John H. Breck Inc. "Our three Shampoos, Banish, Creme Rinse and many other hair preparations are in glass bottles; a rough ride could be trouble. So we decided to check the smoothness of Flexi-Van. We sealed an impact recorder in one van. It showed so little movement we thought at first the recorder was broken."

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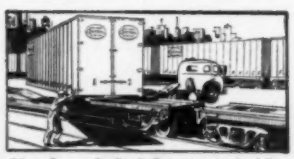

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In Marketing

• • •

Canada Invites TV Scramble by Ending "One Station Per Market" Policy

A new TV station market will soon open up in Canada.

The Canadian government has amended its "one station per market" policy, in effect since 1952. Starting Sept. 15, the Board of Broadcast Governors will receive applications for licenses to establish competitive stations in the cities where the publicly owned Canadian Broadcasting Corp. now has a monopoly. It also will receive applications for new private stations to compete with existing private outlets.

BBG will start holding public hearings to consider the applications in Winnipeg next January. Later, it will conduct hearings in Vancouver, Toronto, Montreal, Edmonton, Calgary, Halifax, and Ottawa. CBC has a monopoly in all these cities except Edmonton and Calgary. In all other larger centers, privately owned stations, which must carry some CBC-TV programs, are now operating on an exclusive basis.

If proposed new regulations go through, **BBG will require that a minimum 55% of the programs—both CBC and private—be of "Canadian content."** CBC currently carries about 51%. And there are other restrictions on alien ownership and programs.

Some prospective new station applicants feel that the 55% minimum is too high and offers few plums to the private outlets. It will be costly to provide that much Canadian content, they argue. CBC itself will have to expand outlays for programing, but the federal treasury now subsidizes CBC to the amount of about $55-million a year.

The restrictions are aimed in part at preventing a flood of U.S. films, which stations could acquire at a fraction of the cost of providing their own programs. BBG aims to promote Canadian culture, develop home talent, open up Canadian jobs. But even with the restrictions, the new stations promise an expanded market for U.S. programs.

• • •

Porsche Is Expanding Its Outlets, Expecting Stiffer U.S. Competition

Porsche K. G., German manufacturer of the Volkswagen's aristocratic cousin, is arming itself for the stiffer competition it sees ahead for the consumer's automotive dollar.

With the entry of the U.S. compact car, Porsche foresees that the foreign car will no longer enjoy the heyday it has had in recent years. While Porsche believes the glamor makes, such as its own, will feel the new competition less than the lower-priced imports—especially the late-comers—it is leaving nothing to chance.

The company has a two-pronged program in the works:

Instead of distributing solely through a New York concern, Porsche will funnel its cars through six territorial distributors: in Jacksonville, San Antonio, Chicago, Hollywood, San Francisco, and New York. The company will maintain a full-time service engineer in each territory. It is bringing in $1-million worth of parts (retail value about $2-million) to backstop its service program.

The company explains the sudden emphasis on service this way. "We believe the first sale originates in the showroom. But repeat sales are built on a solid service organization . . . From now on, those repeat sales are going to be vitally important to all European car companies."

The advent of the Big Three's compact cars will break the U.S. foreign-car market into two groups, Porsche argues: the buyers who want the "continental flair" and the buyers who seek economy. Even among the glamor makes, it predicts a swing to styling obsolescence. **Its own 1960 model will undergo a considerable face-lifting.**

Each of the new Porsche distributors handles Volkswagen. Though the two companies are separate, many European dealers who sell the Porsche-designed Volkswagen also sell the Porsche. Porsche claims it has doubled up to effect savings in service. But the dual distributorships could also provide a hedge against the split in the foreign car market which Porsche sees coming.

• • •

86-Proof Old Forester Due This Fall As Brown-Forman Joins the Crowd

Old Forester, long a holdout against the trend to market premium whiskies in both 86 and 100 proof, will come out in an 86-proof version this fall. A new bottle, designed by Raymond Loewy, and an extra $1-million ad campaign will help consumers distinguish the new brand from the 100-proof Old Forester.

Brown-Forman Distillers Corp. explains that "consumer demand" for a premium bourbon of lighter, milder proof and proportionately lower cost is the reason. It has its eye on the army of young population that will be coming into the market in the years ahead, and believes the 86-proof version will appeal especially to them. Further, says a Brown-Forman spokesman, the company now has the inventory to support this move; a year ago, it didn't have.

The straights—mainly 86 proof—have been winning the battle against the bonds in recent years (BW—Feb.14'59,p43), though Brown-Forman says Old Forester has successfully bucked this trend. One estimate has it that in 1958 the 86-proof breed outsold the bottled in bond by about 9 to 2. Five years earlier, the straights' edge was something like 2.5 to 1.

Among the national brands, Stitzel-Weller's Old Fitzgerald is now the only one to appear only in 100 proof.

"We wouldn't think of doing it," said Julian Van Winkle, Jr., whose family owns Stitzel-Weller. We don't believe in watering whiskey. We remain the only distiller of a brand that is always and exclusively bottled in bond . . . Our sales curve indicates that is what our customers want."

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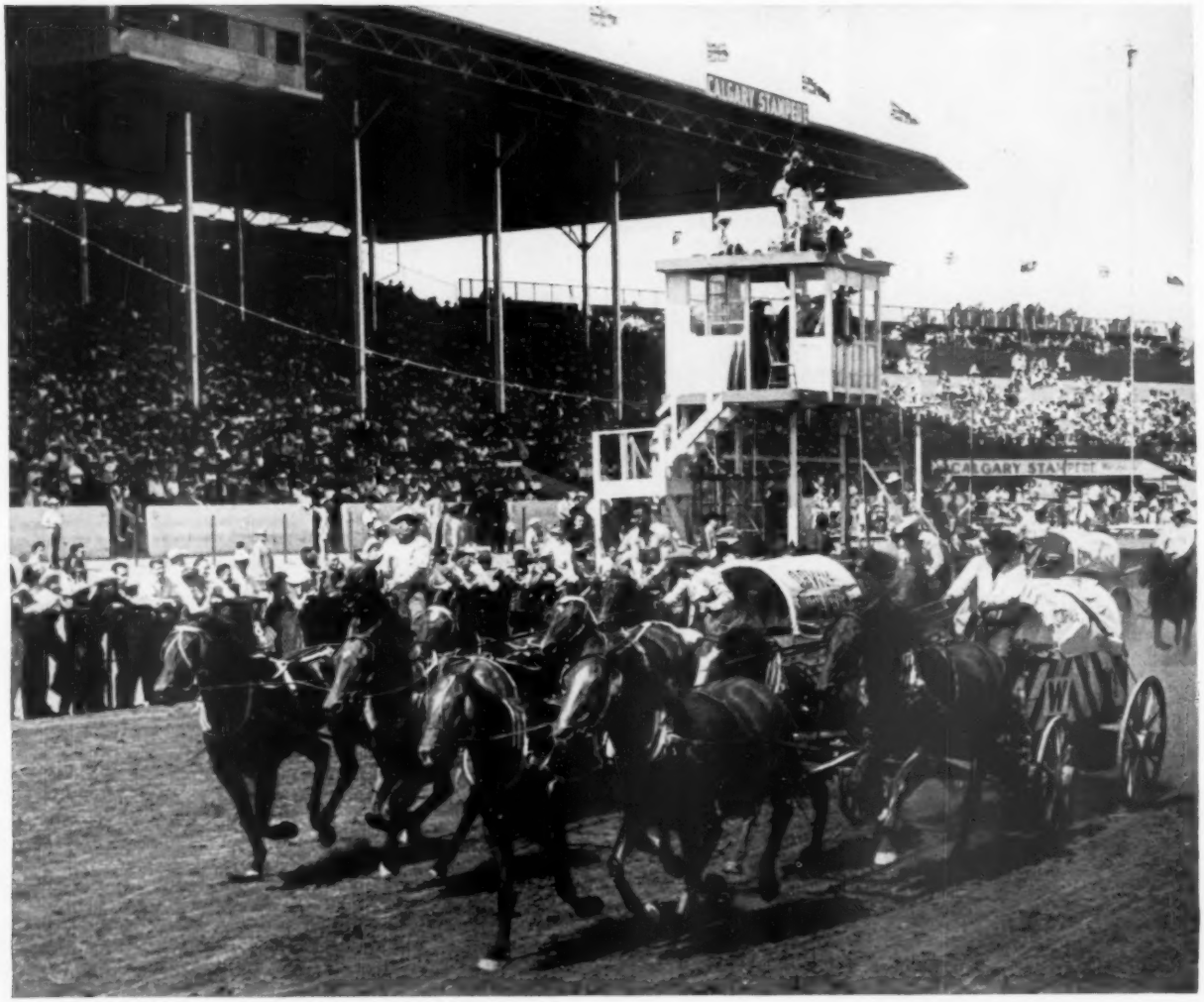

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THE ECONOMICS PATTERN

Your Choice on Rates of Inflation

TO DEAL with the hot question of how fast the U.S. economy is (or isn't) growing, BUSINESS WEEK some time ago offered its readers a set of calculations showing that postwar growth rates could be figured so that they ranged anywhere from growth of 8.5% a year to shrinkage of 2.7% (BW—May23 '59,p133).

The whole trick turns on the choice of a base date, a fact that statisticians have long appreciated. And what is true in the case of growth rates is equally true of another hot question these days—the relative speed (or sluggishness) with which prices have been rising.

Earlier this year, Prof. Alvin H. Hansen of Harvard surprised many of his fellow economists by declaring that postwar U.S. price increases actually had been more moderate than the nation's long-run average. Hansen stated that from 1948 to 1958 the compound rate of increase of consumer prices was only 1¾% per year, compared with a rate of increase of 2¼% per year for the six decades from 1897 to 1958.

BUT OTHER calculators may draw other conclusions. To see how, start with a table of the Consumer Price Index published monthly by the U.S. Bureau of Labor Statistics.

CONSUMER PRICE INDEX
(1947-49 = 100)

Year	Reason Selected	Index
1913	*Earliest official index*	42.3
1920	*Peak year of post-World War I inflation*	85.7
1922	*Bottom year in postwar price decline*	71.6
1929	*Final year of the boom of the 1920s*	73.3
1933	*Bottom year of depression*	55.3
1939	*Last pre-World War II year*	59.4
1945	*End of World War II*	76.9
1948	*End of first postwar wave of inflation*	102.8
1950	*Beginning of Korean War inflation*	102.8
1951	*End of steep inflation during Korean War*	111.0
1953	*First year of Eisenhower Administration*	114.4
1955	*Conclusion of three-year period of price stability*	114.5
1958	*End of third postwar wave of inflation*	125.5

Annual Rates of Inflation or Deflation
(Percent Changes, Base Year to Terminal Year, in Consumer Price Index)

Base Year	Terminal Year 1913	1920	1922	1929	1933	1939	1945	1948	1950	1951	1953	1955	1958
1913	X	10.6	6.0	3.5	1.3	1.3	1.9	2.6	2.4	2.6	2.5	2.4	2.4
1920	X	X	−8.5	−1.7	−3.3	−2.9	−0.4	0.7	0.6	0.8	0.9	0.8	1.0
1922	X	X	X	0.3	−2.3	−1.1	0.3	1.4	1.3	1.5	1.5	1.4	1.5
1929	X	X	X	X	−6.8	−2.1	0.3	1.8	1.6	1.9	1.9	1.7	1.8
1933	X	X	X	X	X	1.2	2.8	4.2	3.7	3.9	3.7	3.4	3.3
1939	X	X	X	X	X	X	4.4	6.3	5.1	5.3	4.8	4.2	3.9
1945	X	X	X	X	X	X	X	10.2	6.0	6.3	5.1	4.1	3.7
1948	X	X	X	X	X	X	X	X	0.0	2.6	2.2	1.5	1.8
1950	X	X	X	X	X	X	X	X	X	8.0	3.6	2.2	2.3
1951	X	X	X	X	X	X	X	X	X	X	1.5	0.8	1.5
1953	X	X	X	X	X	X	X	X	X	X	X	X	1.5
1955	X	X	X	X	X	X	X	X	X	X	X	X	2.5
1958	X	X	X	X	X	X	X	X	X	X	X	X	X

It's a simple exercise in the use of logarithmic tables to produce compound rates of increase in consumer prices—or "rates of inflation"—based on the consumer indexes. The various combinations of base and terminal years, along with the compound annual rates of price increase (or decrease) they yield, are presented in the box score above.

To find the annual rate of increase in prices between any two years listed in the table, select the appropriate starting year in the left-hand column. Then follow the line over to the column for the terminal year of your choice. Thus, the combination of a 1913 base year and a 1953 terminal date yields an annual rate of increase of 2.5%.

The table offers selection of rates ranging from a 10.6% per year rate of inflation between 1913 and 1920 to an 8.5% per year rate of deflation between 1920 and 1922.

Even if you stick to 1958 as the terminal year, you can find annual rates of inflation ranging from 1.0% (with 1920 as the base year) to 3.9% (with 1939 as the base year).

If you want to calculate really long-term rates of inflation, you can of course hook older unofficial consumer price indexes into the BLS series, as Hansen has done. You can, for instance, use the series Hansen himself calculated a quarter-century ago for the years 1820-1923. If you take his 1820 date as your starting point and run on to 1958, the rate of price increase over the 138-year period turns out to be 0.9% per year. If you start with 1858, it works out to 1.2% per year.

IF YOU'D like an astronomically high rate of inflation to prove we're doing beautifully now, take the Civil War years 1861-65, when the annual rate of inflation, according to Hansen's index, was 25.5% per year. (Incidentally, the index for the year 1897, which Prof. Hansen chose as the base year for his long-run calculation, is the lowest on his own index for any year since the Civil War.)

Besides being able to cite favorite compound rates of price increase, an adroit calculator should always be prepared to say "what the dollar is really worth." This can be discovered simply by dividing the Consumer Price Index for any base year by that for a later year.

The following table shows the purchasing power of the dollar in 1958 as compared with its value in the various years used in the table on rates of inflation:

Value of the 1958 Dollar

Base		Base	
1913	36¢	1945	62¢
1920	69¢	1948	83¢
1922	58¢	1950	83¢
1929	59¢	1951	90¢
1933	45¢	1953	93¢
1939	48¢	1955	93¢

So you can make the dollar worth pretty much what you like. Unfortunately, you can't make the 1958 dollar (or the 1959 dollar, which has so far lost a bit more than three-tenths of a cent of its value since the 1958 average) worth more than 100 cents—unless you want to stretch the rules of the game and use Confederate dollars as the base. But only Southern subscribers should do that.

LABOR

What Saved the Pottstown Plant

● **Dana Corp. was on the point of pulling out of Pottstown, Pa., when the UAW decided to cooperate with management to keep the plant open.**

● **The company agreed to stay put—and to modernize the old plant—if the union would accept new cost-saving standards and other contract revisions.**

● **Now Dana and the UAW both say they are happy, and both employment and production are up.**

Within the next few weeks, management and labor will celebrate the completion of a difficult four-year, $5-million modernization program at Dana Corp.'s Pottstown Div. in Pottstown, Pa. It will be a particularly happy occasion for the plant's 1,000 employees. Their jobs were saved when Dana decided to modernize the Pottstown plant instead of shutting it down.

The decision was Dana's, but it was strongly influenced by the willingness of the United Auto Workers to cooperate with management to resolve problems of an uneconomic plant.

• **Costly Practices**—The complaints by Dana seven years ago, when it was seriously considering closing the Pottstown plant, were much the same as those now being heard from basic steel companies. Through the years, UAW Local 644 at Pottstown had negotiated into Dana contracts a body of work practices and standards that inflated labor costs.

As a result, the Dana plant was no longer competitive. Its costs had pushed up beyond what its customers were willing to pay for products. Sales of universal joints and propeller shafts were dwindling.

Dana protested, futilely for years, that restrictive measures were putting the Pottstown Div. out of business. It complained that many production workers were putting in only four or five hours of work a day—although they had to be paid for eight. The company warned that new cost-saving standards would have to be negotiated to keep the plant running. Local 644 committeemen refused to bargain away the contract gains made in the past. They demanded that the parts maker keep up with the big auto companies in contract terms.

• **Move Is Planned**—Meanwhile, strikes and other labor troubles aggravated Dana's problems at Pottstown. In the early 1950s, the operation there was the worst trouble spot in the entire Dana manufacturing complex.

Dana faced two alternatives: It could continue plugging along at Pottstown, hoping for improvements, at a risk of losing a parts market in which it had pioneered—or it could shift production elsewhere. It chose the latter, and decided to rush completion of a new universal joint-propeller shaft plant in Marion, Ind.

Local 644 scoffed, at first, at the possibility of a threat to the Pottstown plant. When Dana began a limited removal of machinery to Marion in the summer of 1952, the unionists were less confident. They really began worrying when Dana opened its ultramodern, highly efficient plant in Indiana. A Local 644 committee went through the plant at an "open house" for employees; their report to the Pottstown workers was a gloomy one.

Belatedly, a campaign to save the Pottstown plant began. Workers asked UAW international officers for help. Routinely, their plea was referred to Richard T. Gosser, UAW vice-president for the auto parts industry, located in Toledo.

• **A Realist**—Gosser is a somewhat controversial figure in the labor movement. Just this week, his name came up in heated debate among members of the Senate's racket committee; Republican members called for a hearing that would go into Gosser's background, Democratic members in equal number refused to schedule one without being advised —in advance—on what evidence the GOP members have of possible wrongdoings.

Often, Gosser is a maverick in UAW. His policies in his parts industry bailiwick may veer, at times, from those of the auto union generally. Through recent years, Gosser has used persuasion —or pressure—to push through modified agreements drafted to make smaller auto union employers more competitive.

Gosser pitched in to try to save the Dana plant at Pottstown. He made clear to the company a union willingness to consider reasonable concessions to prevent a shutdown—provided the company would agree to put new effort and money into the plant.

• **Dana Demands**—Lloyd J. Haney, Dana's industrial relations director, laid the company's cards on the table. The decision to transfer production to Marion had been made and approved. It could be revoked, but for a price. The company would keep the Pottstown plant—and modernize it—only if the union would cooperate in good faith through 21 major revisions in the contract covering the uneconomic Pottstown plant. Haney warned that Dana wouldn't spend another cent on modernization unless—and until—the company-proposed agreement was in effect and operating successfully.

Before, the ultimatum would have been met with a hard-headed rejection and a strike—and a permanent plant shutdown. With Gosser guiding the decision, Local 644 consented to changing every work standard in the plant—even though this meant production workers would have to put in a full and honest eight hours work every day to take home as much money as before.

In return, at UAW's insistence, Dana conceded that (1) the removal of machinery to Marion would be stopped; (2) work would be brought in to Pottstown to replace that already shifted away; and (3) the plant would be modernized once the new contract was in smooth and trouble-free operation.

The local adopted the terms unanimously, with 1,400 votes of approval, after Gosser and other international officials made sure all of its provisions—the good and the bad—were thoroughly understood.

• **Administration**—In many ways, the contract was a radical one. And, with the plant's future at stake, both labor and management agreed it had to be made to work with as little friction as possible. Special techniques were considered necessary. After consulting the union, Dana applied one that is controversial from a management viewpoint—but that had worked effectively in Dana's Toledo and Hillsdale, Mich., plants.

Time studies often may cause dissension in plants. They affect the rate at which work must be done, and the pay for it. With a major retiming project ahead, Dana asked the international and local unions to designate two members to serve as time study stewards. The

corporation sent them to an independent time study school in Detroit, with wages and all expenses paid, to bone up on techniques.

Dana's time study staff retimed every job in the plant to conform with the requirements of the new contract. The union time study stewards received complaints on new standards, ran their own studies, recommended adjustments where called for, otherwise stamped the new standards "fair" and rejected grievances.

This procedure based arguments over standards on findable facts—negotiations over what the standards should be were outlawed by union-management agreement. This policy has now worked successfully at Pottstown for seven years. The company says it has eliminated a "source of continuous contention—work standards."

• **New Flare-up**—After the standards were adjusted, relations in the plant were progressively better—until orders fell off sharply in the summer of 1953; then job worries stirred new discontent. Workers complained they had been "taken" by the new contract. They voted 9-to-1 for a strike.

Gosser intervened again. Once more he used persuasion and pressure—probably more pressure than persuasion. As a result, a new strike vote was taken, and a walkout was rejected 5-to-1. The contract remained unchallenged and unchanged.

From time to time, difficulties arose. Friction can't be avoided in a period of continuing changes. But after the 1953 threat, troubles were settled at a conference table. The understanding in union ranks was: No dispute is big enough to warrant risking the agreement to save the Pottstown plant.

• **Company Reacts**—The company sought new business for the Pottstown Div. as soon as it was convinced that labor relations were stabilized there. To keep machines running and men working, it went into strange fields—at one point, the auto parts plant was making casket locks.

In the fall of 1954, employment dropped to 450. The company perked up the low morale with an announcement that it was ready to modernize the Pottstown Div.

Dana acquired the three-story brick plant building in 1919, but it was built for Chadwick Motor Car Co. in 1894. From time to time, after Dana moved in, one story buildings or additions were added; at the time the modernization job actually got under way in late 1955, there were 23 units in the complex. The old brick building stood like a medieval battlement right smack in the center—making a vital rearrangement of work flow lines almost impossible. It had to come down, and demolishing it without interrupting work in the surrounding units posed king-size engineering problems.

These could be met, Dana assured its plant workers, but they would have to live through difficult times—of dust, dirt, and confusion. They agreed to, and have for the past five years. One employee commented a few days ago that he wasn't sure, for a long time, where he would find his machine from day to day. Another laughed at the problem, sometimes, of finding a whole department—Finished Stores was relocated three times.

The big worry throughout the project was the possibility of injuries to production workers during razing and rebuilding operations. There were none.

• **Production Up**—The modernization program is now about complete; only the final touches are necessary. The work flow has been entirely rearranged, to minimize irksome, time-consuming, and costly delays. Many new machines have been installed. Production and employment are up—with further gains expected.

Meanwhile, the operations continue under the standards set in 1952. There is no indication of any sentiment building up for significant changes.

• **Kudos for UAW**—In these days when unions are under attack from many quarters, Dana has only praise for UAW—and Gosser. Spokesmen say quite frankly that the Pottstown plant wouldn't be open and thriving today if the international union hadn't pitched in to help make it economic and competitive.

Gosser credits the Dana labor policy for much of the change to efficient and successful relations at Pottstown and in other operations. "I don't know just what it is they have at Dana," he said some time ago, "but whatever it is, they work like hell to keep their labor relations smooth."

Haney is a key man in the Dana program. Labor commissioner under former Gov. Harold Stassen of Minnesota, Haney took on a tough job at Dana—at a time when its labor relations were poor. UAW considers him tough but fair. Union people get along with him very well, and vice versa. There's an important mutual respect.

Dana has an efficient grievance system that settles most employee complaints quickly and directly; they don't have time to build up into beefs that can be turned into labor-management issues. When troubles do flare up, now, Haney and Gosser are likely to take them up on the phone. Chances are, the troubles are cooled down that simply.

Last year, when the auto parts industry had contract troubles after the Big Three settlements, Dana signed up with UAW quietly, in one week—with no fuss or threat of trouble. END

Survey parties from USS Skate, surfaced in Polar ice, exploring the great ice pack. OFFICIAL U. S. NAVY PHOTO

UNDERWATER "TV EYE" USED BY ATOMIC SUB SKATE TO SURFACE WITHOUT DAMAGE IN POLAR ICE PACK

On its historic cruise to the Arctic, the atomic submarine Skate was able to find areas in which to surface though the average thickness of the ice was 12 feet. This epic event marked the first time a submarine was ever able to surface directly at the North Pole!

The answer: an underwater "TV eye"—a unique, closed-circuit television system developed by Bendix-Friez that enabled the Skate's crew to "see" the perpetually dark and treacherous underside of the craggy ice pack.

Consisting of a television camera mounted on the bow and viewing screen inside, this super-sensitive electronic device, which magnifies light many thousands of times and literally sees in the dark, helped locate "ice lakes"—spots where the ice was thinnest so the Skate could surface without damage. Even during the winter when sunlight is negligible, either above or below the surface, it presented a probing picture never before seen by man.

There are a host of products designed and built by Bendix at work beneath the sea . . . sonar devices to detect enemy submarines; telephones for submarines; depth recorders; "fish finders"; "brains" to guide torpedoes and undersea missiles plus new types of hydraulic equipment for steering and diving operations and for controlling a score of other all-important submarine functions including periscopes, radar antenna and snorkels.

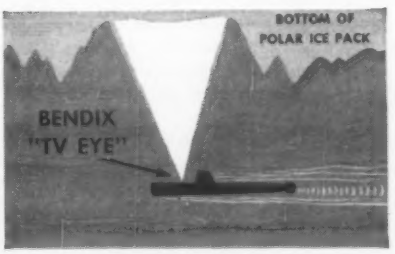

Diagram shows how Bendix electronic eye views underside of ice pack.

A thousand products **Bendix** AVIATION CORPORATION Fisher Bldg., Detroit 2, Mich. *a million ideas*

In Labor

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IBT Swathes Strike Approval in Red Tape, But Is Adept at Cutting It Quickly

Not many years ago, members of a local union engaged in a dispute with their employer just walked out. They could count on their international's backing. Now, **with union officials worried about lawsuits, bureaucratization has reached the unions.**

The International Brotherhood of Teamsters recently reminded its locals, by a special notice, that they must use Form P2028, Request for Strike Sanction, printed in quintuplicate, in petitioning for a strike authorization. **IBT will not give aid to unauthorized work stoppages.**

Under the prescribed IBT procedure:

The original goes to the IBT president, James R. Hoffa, who makes the final decision on a strike authorization after a study of the circumstances.

The duplicate is sent to the vice-president in charge of the local's district; he investigates the request and recommends for or against strike action.

The triplicate is kept in the local's files.

The quadruplicate and quintuplicate are sent to the joint council to which the local belongs. Council officers investigate the dispute, file the quadruplicate copy and sign the quintuplicate and send it with a report to the regional conference. Conference officers "in turn . . . make their investigation and sign the quintuplicate copy and forward it to headquarters."

This strike procedure requires four investigations, with reports and referrals. Employers who deal with the Teamsters say that they've never seen bureaucracy's red tape handled as quickly anywhere else; even the expediting seems to be expedited where a strike authorization is requested.

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NLRB Rules Against Employer Who Fired Male Employees for "Molesting" Girls

A National Labor Relations Board trial examiner last week had to decide whether an employer fired eight male employees for such activities as slapping female employees on the rear "and so forth and so on"—or because they joined a union. He ruled out sex as the reason.

The examiner found—on the basis of some of the most explicit testimony ever heard by NLRB—that the "and so forth and so on" had been going on for some time, without anybody being disciplined. The firings came only after the employees joined a union. Hence, he said, they were an unfair labor practice.

The employer, John Santangaelo of Charlton Press, Inc., testified that he learned on his return from a trip that the eight men in the composing room had been "molesting" girls who had to go there on business. He said he was so incensed that he decided to replace the men—the entire department.

The NLRB examiner agreed that such a decision "merits acclaim" if it's the only way to protect female employees from unsolicited indignities, familiarities, and other forms of molestation. But, he noted, the molestation seemed to be of no concern to Charlton Press until a check by the employer showed that all the compositors had joined a union.

The examiner commented that the employer "is not naive: I believe he was both aware of and reconciled to the basic fact that contiguous employment of both male and female in offices and plants has inevitably led to a relaxing of formal barriers and to a tolerance of casual badinage and conduct not free from overtones of sex."

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NLRB Extends Coverage to Hotel Workers

The National Labor Relations Board this week set standards that it will use in a new jurisdiction, over hotels and motels. It will now accept cases involving employers who gross at least $500,000 a year, provided no more than 25% of their guests remain longer than a month.

According to NLRB, the new standards will bring more than 60% of all hotel workers under its coverage.

The NLRB announced the standards in ordering a representation election at the Floridan Hotel, in Tampa.

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Labor Briefs

Railroad employment reached a year's high of 987,000 in June, up 41,000 since the first of the year. But, according to the Railroad Retirement Board, which handles unemployment pay claims, the 1958 total is 21,000 below the 1958 peak of 1,008,000.

Compulsory retirement of jet pilots at 55, recommended by the Federal Aviation Agency, is opposed by the pilots' union. It points out that a pilot of 55 must pass the same medical checkup as one 30. The union warns that if jet pilots must retire five years earlier than others, airlines will have to raise their pay to offset a potential loss of $200,000 in earnings and pension credits.

One of every three Inland Steel strikers is also a stockholder, the company announced recently. Of 19,000 production and maintenance workers, 6,500 own shares in the company.

The McClellan committee at midweek released a report on 1958 hearings on improper relations in the labor or management field. It described the testimony heard as "sordid," and denounced Teamsters' Pres. James R. Hoffa as a threat to the "decent labor movement" and to "American economic life." It urged remedial legislation.

Teamsters monitors won another round this week when Supreme Court Justice Frankfurter refused to stay a court decree that empowers them to force a cleanup in the Hoffa-led truckers' union.

Here's how Avis Rent-a-Car takes the bookkeeping out of business car rentals!

AN ELECTRONIC COMPUTER KNOWS YOUR NAME

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Funds Still Bet on Equities

● The nation's investment companies, often a bellwether of market changes, are mostly unworried over high stock prices.

● Most of the funds are continuing to buy equities and shun higher-yielding bonds for their own portfolios.

● For the future, they anticipate market levels even higher than the all-time peaks already recorded.

Among investment company managements, the cult of equities is still an almost universal religion, even though stock prices for over a year have climbed to stratospheric heights. The managers of the funds think that business is going to surge strongly upward this year, and they expect stock prices to keep rising ahead of the business boom.

This is the major conclusion of a survey of investment company policies and attitudes that BUSINESS WEEK reporters completed this week. Investment companies were asked about the main elements behind the stock market's rise, the major influences on the market for the rest of the year, and changes in investment policy. They were also asked to make estimates of the Federal Reserve's production index for 1959 and the yearend Dow-Jones industrial average.

• **Bellwethers**—Although by law the investment companies operate in the goldfish bowl of full disclosure, the public looks on them as "insiders." As the biggest spenders on financial research in Wall Street, their managements' predictions are avidly read; changes in their portfolios are scrutinized by both the amateur investor and the Wall Street professional.

• **Smiling Faces**—An unusual complacency among the investment company managers—in both closed and open-end concerns—was uncovered by the survey. Most are optimistic despite high stock prices and very low yields; they expect higher prices and even lower yields. They show some concern about "investor psychology" and the public's rising bullishness, but they don't think it has yet gotten out of hand. And they're still buying stocks with slim yields and ignoring bonds with fat yields.

The vast majority believes that the business cycle is still swinging up, the "Golden Sixties" just around the corner. So they are still buying equities along with other investors because they see them as the best medium for participating in rapid growth, plush profits, and fat dividends. As one fund manager summed up: "There's wide acceptance of the idea that the economy is in a growth phase and that stocks are one of the best means of participating."

• **Bullish Bias**—This optimism is increased because nearly all of the funds underestimated the force of the business snapback this year. Their earlier forecasts of the 1959 average of the Federal Reserve production index, they admit, were too low. With the index now at 155 (average for the first six months 149), some of the fund managers predict that it will soar to 160 by the fourth quarter, or to a proportionately higher figure if the Fed makes the statistical revision of the series that it has in the works (BW—Aug.1'59, p28). Of course, the mutual funds, with some $14-billion of the $17-billion assets held by investment funds, naturally have a bias toward bullishness. Their shares are being continuously merchandised. If a fund wants to encourage dealers to sell its shares, and the public to buy, its investment management is under pressure to put the best possible face on projections of current business and stock market statistics. So far, the investment managers' bias has coincided with the direction of the economy, and their predictions generally have come pretty close to the mark.

• **Higher Yet**—The chief prediction of the investment managers' now is a higher stock market at yearend.

Although stock prices have gone nearly straight up for more than a year, most expect them to be substantially higher by yearend than today; others see prices, at worst, only slightly lower than current levels.

The most optimistic economists and analysts think the Dow-Jones industrial average is apt to go over 700, perhaps to 725. The least sanguine envision the average dropping to 640-650.

While the funds' managers anticipate a bigger boom in stocks, their characteristic ebullience is clouded with caution. Many of those surveyed say that "investor psychology" and "investor confidence" are driving the stock market up; they count this "psychology" as a controlling factor.

• **Net Buyers**—However, this mild concern over high stock prices and the public's headlong rush to the cult of equities has not curbed investment companies' appetites. Most are still net buyers of equities at prices admittedly inflated; they're turning their backs on high-yielding bonds.

A few are buying both stocks and bonds to keep an historic portfolio balance. But even fewer are actually switching from stocks to bonds, or hedging by buying convertibles. Most funds made no major investment policy changes in the second quarter, nor do they plan any for the rest of 1959.

While the funds have been net equity buyers at fancy prices, they have also done a lot of picking and choosing. Oil stocks were heavily sold in the second quarter, so much so that sales of shares exceeded purchases for the first time in several years. Most of the selling was in international oils; it concentrated on Standard Oil Co. of California. An exception was Texaco, which was bought on balance.

• **Pro and Con Choices**—The rail, drug, insurance, appliance, and airline stocks were also sold on balance. For the first time in a year, utilities' stocks were bought on balance, but American Telephone & Telegraph stock was sold overall for the second quarter. Other heavy selloffs were in Sinclair Oil, Bristol-Myers, and Aluminum.

Among the stocks for which the funds were scrambling in the second quarter, Ford Motor Co. headed the list, followed by General Telephone & Electronics, International Business Machines, North American Aviation, and Schering Corp.

Among the autos, General Motors and Fruehauf Trailer stocks were showered with attention; in the steel group, Jones & Laughlin, Bethlehem, Armco, and Republic Steel were popular. The managers also purchased four foreign steel issues—Sidelor, Steel Co. of Wales, Stewarts & Lloyd, and United Steel Companies. Kaiser Aluminum and International Nickel were standouts among the metal stocks, and in the chemical group, the honors went to Farbenfabriken Bayer, Union Carbide, du Pont, and Olin Mathieson.

The funds surveyed by BUSINESS WEEK forecast that for the rest of the year a number of stock groups will do better than the Dow-Jones indus-

trials. Their choices include autos, banks, steel, rubber, machinery, office equipment, drugs, and chemicals.

Stocks expected to do worse than the Dow-Jones industrials include building materials (except cement), oils, aircraft, nonferrous metals, electric utilities, and food chains.

• **Against the Average**—But with all the portfolio turnover and search for income and profits, the funds have had a difficult time so far this year keeping up with the old-fashioned, unmanaged Dow-Jones industrial average.

The fairest comparison by Arthur Wiesenberger & Co., investment company specialists, charts "management performance." This includes the change in share value, plus reinvested capital gains and income from dividends.

On this adjusted basis, the Dow-Jones average was up 12% for the first half. The 57 diversified common stock funds with unrestricted policies included in the Wiesenberger study were only up 9% on average; and only five bested the Dow—Aberdeen Fund, Axe Science & Electronics, Dreyfus Fund, Keystone Custodian Funds (series S-4), and Managed Funds General Industries.

Of the 10 income funds in the study, up an average of 10%, only two out performed the Dow—National Securities & Research Dividend Series and Puritan Fund. Of the 34 balanced funds, which rose an average 5%, only one topped the Dow—Minnesota Fund.

But of the 14 growth stock funds, with an average gain of 13%, eight were better than the adjusted Dow-Jones Average—Chemical Fund, Diversified Growth Stock Fund, Energy Fund, Growth Industry Shares, National Investors, National Securities & Research Growth Stock Series, Television Electronics Fund, and United Science Fund.

• **Interpretations**—The managers offer a number of reasons why stock prices keep climbing and small-time speculation keeps increasing. In their view, one factor is belief that business is more resilient in its reaction to recessions than it used to be. In addition, as long as business is improving, the average investor is unlikely to sell. The managers also cite fear of inflation, the surprisingly sharp rebound in business activity and in profits, and reduced supplies of stock resulting both from big holdings of blue chips by institutions and from the capital gains tax, which sometimes prevents investors from taking their profits.

On the negative side, some fund managers detect signs that equities might shed some of their glitter. But, in the short run at least, they expect substantially increased dividends in the fourth quarter to overshadow any evil omens. **END**

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In the Markets

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News of Eisenhower-Khrushchev Visits Causes Sharp Drop in Stock Prices

Changes in the international picture, in the form of Eisenhower-Khrushchev exchange or visits, had an unsettling effect on the stock market this week. At midweek, the market broke sharply, then rebounded somewhat. So-called "war" stocks, particularly missile and electronic shares, suffered most. In general, **issues that had moved up the fastest in recent months had the sharpest drops.**

But few observers believed that the decline in prices was more than a temporary affair. As one put it: **"The market's just using the peace talk as an excuse. We've been overdue for a correction for some time."** To support the opinion that the great bull market is as healthy as ever, brokers pointed to heavy buying of such blue chips as Ford, which rose to a high of 81¼ this week.

However, **there's a good chance that technical corrections—of up to about 10%—may become more frequent in the future.** Increasingly, brokers are reporting that the Federal Reserve's new regulations limiting substitution of securities in margin accounts—which went into effect June 15 (BW—May16'59,p34)—are taking their toll. "The Fed won't be able to stop speculation," said one broker who claims his commission income has been cut by the Fed's action. "But they're certainly slowing it down."

• • •

Treasury Steps Up Short-Term Offerings To Take Advantage of Ease in Market

The Treasury Dept. this week took advantage of easier conditions in the short-term market. It said it would round out its $6.7-billion borrowing for the July-October period by stepping up the weekly bill offerings, beginning with a $200-million addition to the 13-week bill auction on Aug. 13. In addition, it will raise $1-billion more on Aug. 13 by adding to the $3-billion tax anticipation bill issue now outstanding and due March 22.

The Treasury's move comes at a time when the money market, particularly in the short-term sector, has turned bullish because of the steel strike. Demand for funds is now slack and commercial paper dealers reduced interest rates by ⅛ of 1%—their first cut in over six months.

• • •

World Commodities' Markets Pick Up Strength; Sugar Is Exception

After an unusual quiescence in June and much of July—mostly as a result of the steel situation—the world commodities' markets turned decidedly stronger this week. Many commodities' prices began moving up, in some cases to their highest levels in nearly two years. **The greatest strength has developed in the industrial commodity sector, reflecting not only a seasonal upswing in production, but also the emergence from a worldwide recession.**

World sugar prices, hovering above their postwar lows, are an exception. They are nervously responding to every rumor about Cuba's intentions. Congress has further clouded the outlook by refusing, so far, to extend the U.S. Sugar Act until 1960.

Among the metals, **steel scrap prices have forged ahead, giving most commodity indexes a hefty push.** But copper prices fell when anticipated labor strikes did not materialize; prices only partially rallied on news of expanding world consumption. The wool market remains exceedingly tight. Prices have advanced by 22% since January, and are going higher. Wool supplies are reported at their lowest levels in years, while consumption is moving up quickly.

• • •

E. F. Hutton Employees Are Accused Of Manipulating Wheat Futures Prices

The Agriculture Dept.'s Commodity Exchange Authority this week charged two employees in the Kansas City office of E. F. Hutton & Co., one of the nation's largest security and commodity brokers, with manipulating wheat futures prices on the Chicago Board of Trade. The Hutton firm, also named in the action, consented—without admitting any law violation—to an order which would bar it from commodity trading for 30 days if it should violate the law within the next year.

CEA charged that the employees, Henry H. Cate and John J. Buterin, "engaged in active solicitation and acceptance of orders from customers for speculative transactions in March and May 1959 futures on the Board of Trade." As a result, CEA said, March futures went up 14¢ a bushel and May futures about 10¢ a bushel, "wholly or in part" due to transactions by Hutton customers.

Ruloff E. Cutten, senior partner at Hutton, emphatically denied any violation of law or any attempt by the firm to manipulate prices. "The fact is," he said, "that the firm does not and did not participate in any speculation or manipulation in the grain market. As a matter of policy the firm never speculates in commodity markets."

• • •

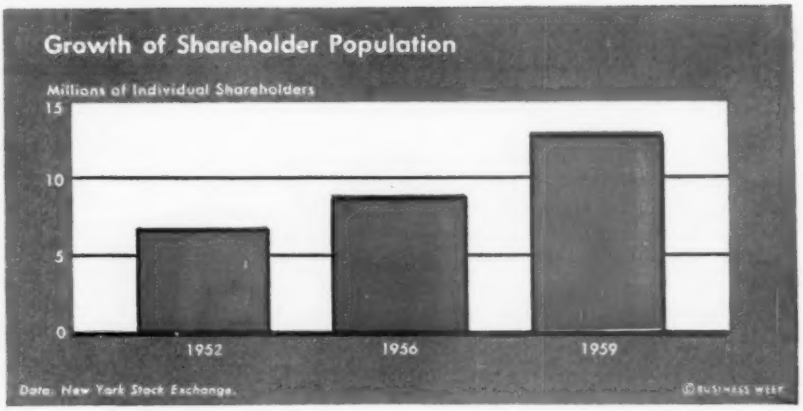
SEC Bans Sale of Managed Funds Shares

The Securities & Exchange Commission late last week banned further sales of shares in Managed Funds, Inc., the $80-million St. Louis mutual fund group that's been under investigation since last April (BW—Jul.25'59,p25).

In its stop-order, SEC stated the fund's former officers, cousins Hilton and Hovey Slayton, were guilty of running the fund for "their personal interests" rather than for the benefit of shareholders. Furthermore, it detailed a whole list of "material facts" the fund failed to disclose in its prospectus. These deficiencies must be corrected before the SEC will lift its order and allow sales of shares to be resumed.

But the SEC's action was just a formality; the fund's independent directors had voluntarily suspended sales shortly after the SEC first announced the probe.

CHARTS OF THE WEEK

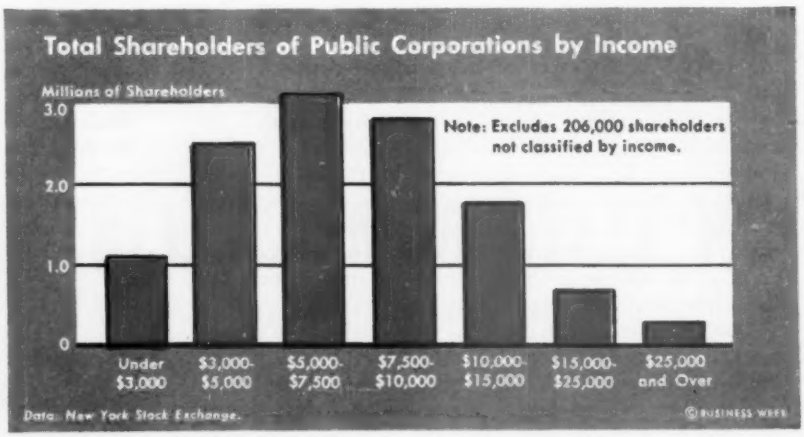


One in Eight Is a Stockholder

Almost 12.5-million Americans—one out of every eight adults—have a personal stake in the stock market, according to the 1959 Census of Shareholders conducted by the New York Stock Exchange (BW—Jun.20'59,p180). This is an increase of 45% since early 1956, when stockholders numbered 8.6-million, and nearly double 1952's figure of 6.5-million.

This surge has been promoted by several factors—higher personal incomes, the growth of employee stock purchase plans, a rising stock market, better understanding of investment, and concern over inflation.

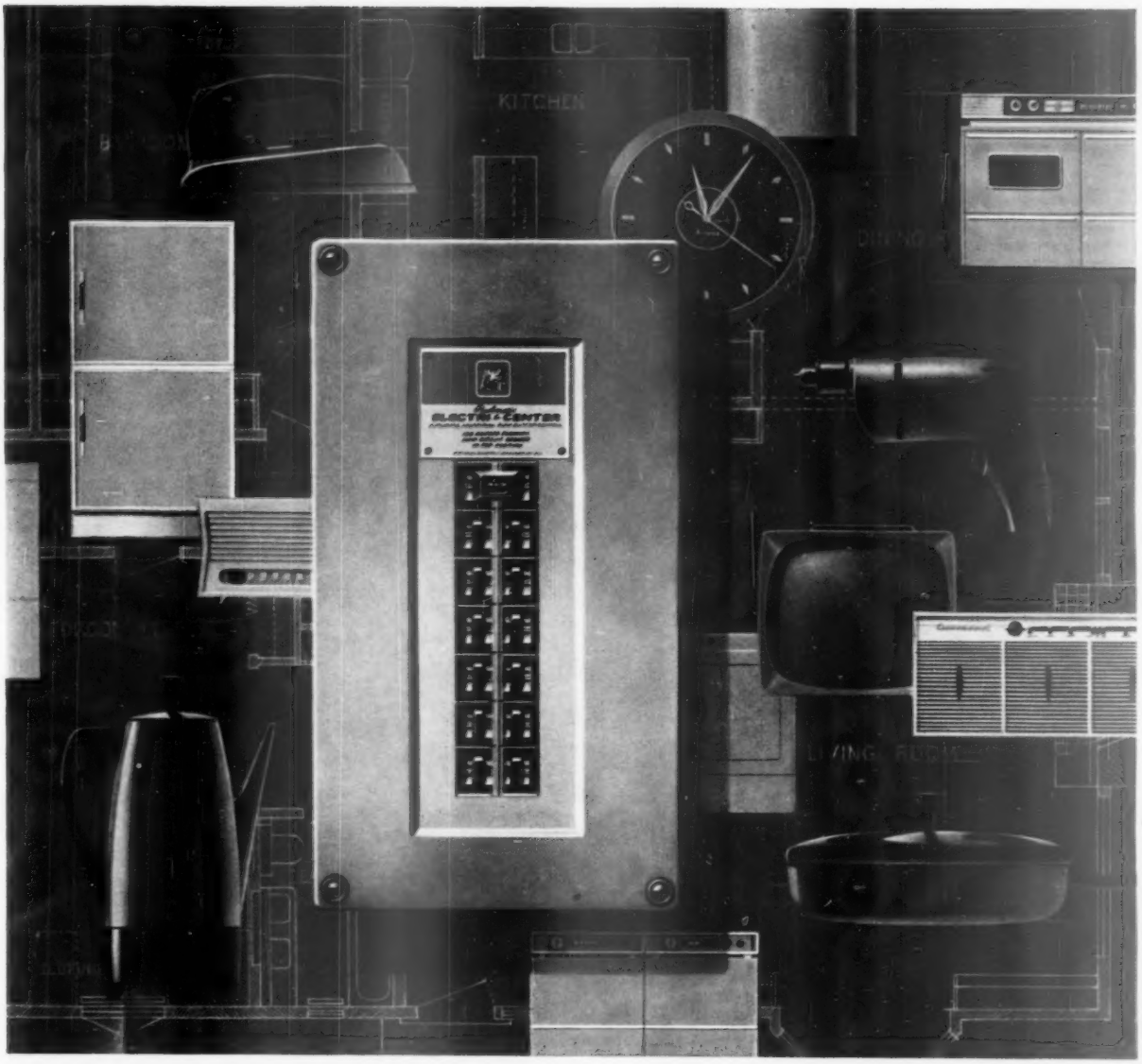
Women shareholders outnumbered their male counterparts in 1956, and the latest census reveals that the ladies are increasing their margin. They now comprise 52.5% of all adult shareholders, compared to 51.4% in 1956. They account for an even greater proportion (56.3%) of new shareholders.



"Middle Class" Leads the List

The breakdown by total household income of shareowners in the U.S. offers quite a few surprises. Only 23% of shareowners have incomes above $10,000 a year, while 5.9-million of them—almost half of the total—fall in the rapidly growing "middle class" where income ranges from $5,000 to $10,000. That means that corporate stock is held by more than a fifth of all the people in the middle income group.

People who have become shareholders since 1956 offered some notable surprises: 80.4% of them reported incomes of less than $10,000, while more than 25% received less than $5,000 from all sources. The median household income of all shareholders has climbed to $7,000 from $6,200 in 1956.



Artist Ned Seidler here paints the ingredients of modern living . . . a familiar variety of typical electrical appliances and the I-T-E BullDog ELECTRI-CENTER® that insures safer, more constant electric power.

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Electricity is a necessity in today's home . . . a vital part of modern living. Today when a short circuit or overload knocks out power, who can afford to wait hours for an electrician to change a fuse? And how many housewives feel confident enough to do it themselves? Forget all that. With an I-T-E BullDog ELECTRI-CENTER instead of the old-fashioned fuse box, you just push a button. The PUSHMATIC® circuit breaker brings your power back instantly. And PUSHMATIC has been proved safe and dependable tne world over. Always gives just the right protection. Gone is the hazard of overheated wires. Never a fuse to change. Today a growing army of electric-living Americans are grateful for BullDog ELECTRI-CENTER protection, love its convenience. The broad line of other I-T-E electrical equipment serves industrial, commercial and institutional users of electricity everywhere, plus all the electric power companies in the nation. Known for its extra quality and superior performance, I-T-E equipment costs no more. Do you need electrical equipment?

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TEXACO ORGANIZED LUBRICATION CAN HELP YOU...

Get rid of the "guns" that "misfire"

His grease guns are aimed at your profits; they can help boost them—or eliminate them altogether. Here's why:

You used to need a different grease for nearly every job. That meant 20 or 30 lubricants in the plant, with the almost inevitable danger of misapplication — and damaged machinery.

Unless you're operating on the basis of a modern lubrication survey, *the chances are that this situation still exists in your plant!*

A Texaco Organized Lubrication Plan uses a minimum number of proper oils and greases—including newly developed multi-purpose lubricants—to reduce your inventory by as much as 80% and virtually eliminate this problem.

Get the details on Texaco Organized Lubrication. Contact your local Texaco Lubrication Engineer or write for "Management Practices that Control Costs via Organized Lubrication."

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LUBRICATION IS A MAJOR FACTOR IN COST CONTROL

PERSONAL BUSINESS

BUSINESS WEEK
AUG. 8, 1959

Yearly medical check-ups have been getting a lot of attention lately.

Yet a surprisingly large number of over-50 executives duck the yearly "physical." **And many men who rely on the annual check-up provided under their company's health program are not actually getting the thorough examination they need.**

What constitutes a "complete" examination? Generally, most medical men would agree that if a check-up covered the following, it could be considered an effective and reasonably "complete" examination:

- **Full medical history**—family background, diseases, operations.
- **Head-to-toe examination,** to reveal special trouble areas.
- **X-ray of the heart and lungs;** also an **electrocardiogram** which charts the action of the heart (often omitted in less searching examinations).
- **Rectal examination,** both digital and sigmoidoscopic (the latter urged by the American Cancer Society as a wise safeguard).
- **Blood count** to reveal anemia, nutritional disorders, infections; **blood sugar test** for diabetes; **blood cholesterol test,** as a possible safeguard against certain heart and coronary blood vessel diseases (BW—Feb.21'59, p117); **blood non-protein nitrogen test,** bearing on kidney function, and **blood uric acid test** to detect "hidden" gout.
- **Urinalysis,** both chemical and microscopic.
- **Eye examination.**
- **Concluding consultation and written report.**

Additional X-ray surveys (gastrointestinal series, barium enema, gall bladder series) should be made if there's a complaint of frequent heartburn, "nervous stomach," poor appetite, diarrhea, or constipation.

In addition, a check on emotional health may be required if there is evidence of excessive tension and stress. Ironically, one indication of the need for this kind of inquiry is an unreasonable fear of a standard physical examination.

Where can you go for such an examination? First, of course, there's your family physician. He can provide the examination himself or direct you to a specialist if certain tests are advisable.

But if you want to combine travel or rest in bed with your examination, or insist on a staff of specialists, there are other sources.

You can go to an out-of-town or resort clinic, places like Mayo (Rochester, Minn.), Lahey (Boston), Greenbrier (White Sulphur Springs, W. Va.), Ochsner (New Orleans), and Aspen (Aspen, Colo.). You make appointments usually three to six weeks in advance, and go for a stay generally lasting three to five days.

At the resort clinics, the medical chore is lightened by relaxing side activities. For instance, at Aspen you can take part in a variety of cultural sessions which emphasize the classical humanities. **At Greenbrier, there's plenty of golf.**

Costs at clinics like these vary greatly. **You can figure medical bills at roughly $150 to $350—plus charges for accommodations, meals, travel.**

Another arrangement is the hospital-connected center, where you become a regular bed patient for two or three days. **Some large private hospitals provide this service—for example, Roosevelt (New York).**

Total cost (medical and hospital) runs roughly $200 to $400.

Finally, there is the day-visit examination center—here the full routine will take no more than six hours, usually only two to four. The list of such centers is growing. Here are the names of a few: **Pratt Diagnostic Center** (Boston), **Life Extension Examiners,** and **Executive Health Examiners** (New York), **Crile Clinic** (Cleveland), **Thompson & Associates** (Chicago), and **Beverly Hills Clinic** (Beverly Hills, Cal.).

The aim of these centers is efficient, one-day medical check-up service, in pleasant surroundings. **Location usually has the busy downtown executive in mind.** Sometimes you'll find agreeable frills like the special surgeon suits for patients, private dressing rooms, and television lounges (at New York's new Executive Health Examiners). Cost varies from $50 to $150.

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"Minimum deposit" life insurance—where you borrow from the insurance company to pay early premiums—has received a severe blow. New York State has outlawed the idea, effective Nov. 1, and the repercussion may be nationwide (BW—Jan.17'59,p103).

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It's not too late to arrange a visit to the Oregon Centennial Exposition and International Trade Fair at Portland—it will continue through Sept. 15. An appealing sidelight to attractions at the fair (details available from Oregon Centennial Commission, Jackson Tower, Portland 5) is the choice of dining places in the area.

Several new first-class specialty houses, offering Continental and worldwide cuisine, have sprung up in and around Portland. Favorites include **The London Grill** in the Hotel Benson-on-Broadway, serving dishes ranging from oysters West Indies to boneless rainbow trout; **The Three J's,** Chinese restaurant featuring boneless duck (Wor Shu duck) with mushroom sauce; **Palaske's Hillvilla,** modern dining spot with an unobstructed 270-degree, 50-mile view of Portland, Willamette River, and Cascade Mountains; **Nendels,** in the suburbs, specializing in fresh Columbia River sturgeon and Chinook salmon; and the **Dan and Louis Oyster Bar,** dining landmark since the early 1900s (order their oyster stew made from native Yaquina and Olympia oysters).

An excellent guide for gourmets visiting the area is the new **Dining a la Oregon,** by Portland newspaper editor John Armstrong (J. & K. Publishing Co., Portland; $1.)

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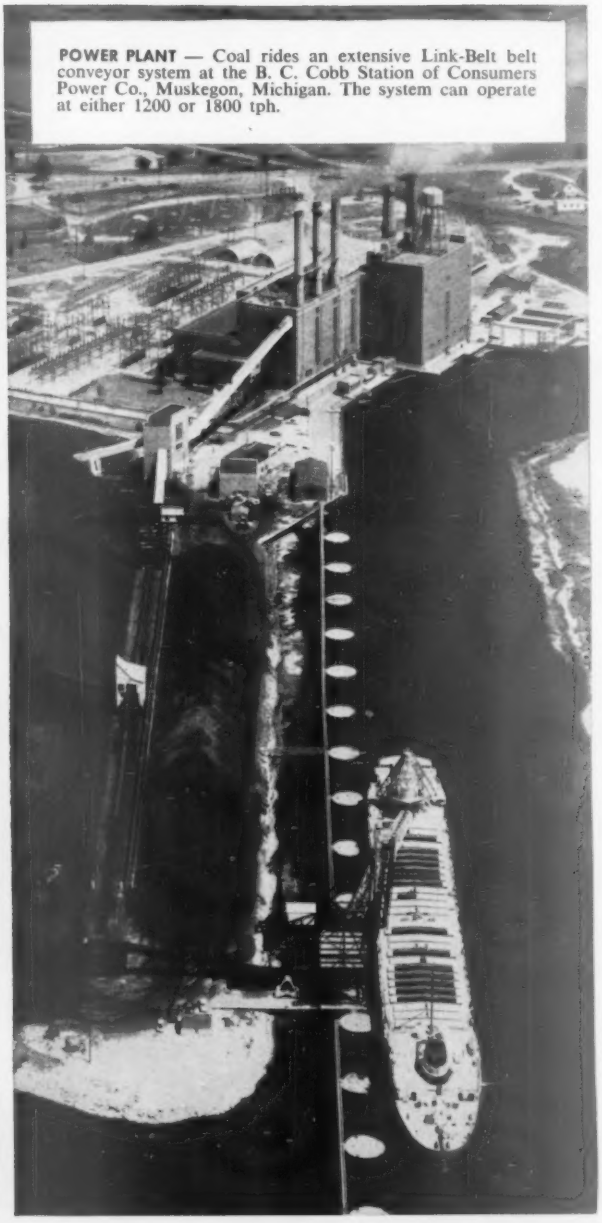
Manners and modes: Raincoats that not only resist water, but also oil and grease, and can be repeatedly drycleaned without reproofing, will appear in leading stores in September. Prices run from $45 to $60 for coats; $45 for sport jackets; and $75 for black evening coats (by Aquascutum) . . . **Called "Con-Duct," a new corneal contact lens with a microscopic opening, permitting constant air and fluid circulation and a shorter "breaking-in" period, has been developed by two Boston optometrists** (BW—Jul.19 '59,p101) . . . **If you have a wine cellar (BW—Nov.30'57,p141), you'll find that an inventory is handy both for reordering and as a guide to the increased value of your "collection."** Write Bordeaux Wine Information, 17 East 45th St., New York 17, for record book, gratis.

Trimming coal costs at both ends

PREPARATION PLANT — Clinchfield Coal Co.'s new Moss Mine No. 3 plant (Clinchfield, Va.) processes 1500 tons of R.O.M. coal per hour. Entire plant—design thru erection—was furnished by Link-Belt.



POWER PLANT — Coal rides an extensive Link-Belt belt conveyor system at the B. C. Cobb Station of Consumers Power Co., Muskegon, Michigan. The system can operate at either 1200 or 1800 tph.

Two installations dramatize scope of LINK-BELT coal handling . . . and how it benefits consumers of electrical power

ECONOMICAL coal handling plays a major role in holding down the cost of electrical power. And wherever coal is mined, wherever coal is a source of power—Link-Belt can provide the means for lowest per-ton handling costs. These plants are typical—working examples of how Link-Belt equipment and experience assure economy and efficiency every step of the way. For full details on our one-source service for materials handling and mechanical power transmission equipment, write LINK-BELT COMPANY, Dept. AV, Prudential Plaza, Chicago 1, Illinois. Ask for our directory, "Link-Belt at Work."

LINK-BELT

One source . . . one responsibility for materials handling, processing and power transmission machinery

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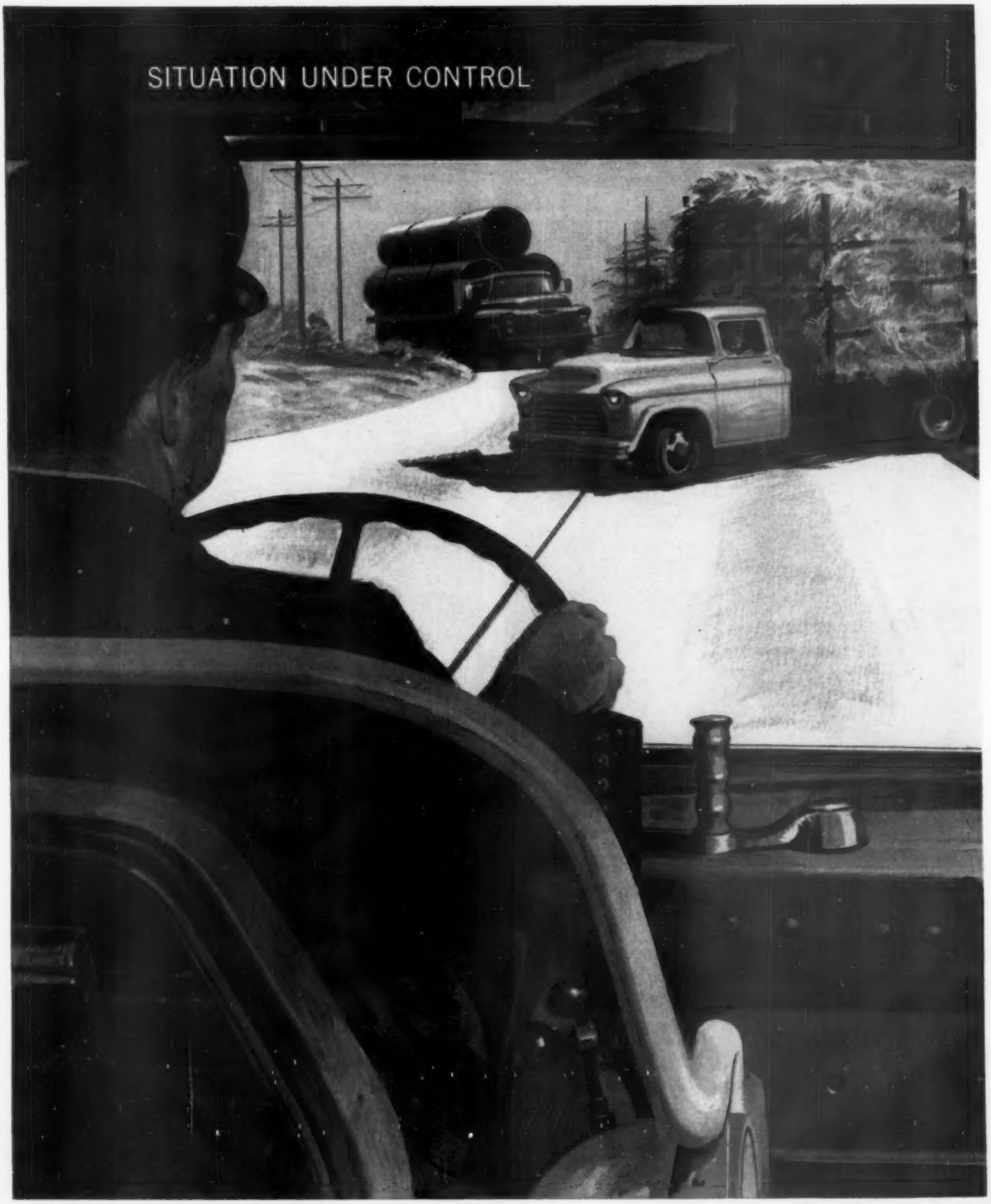

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BENDIX-WESTINGHOUSE AUTOMOTIVE AIR BRAKE COMPANY
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In Regions

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Alaskans Get Own Little Steel Mill—Only It's in Seattle: Is Fairbanks Next?

Alaska is one step nearer having its own steel mill—albeit a small one. The prospects grew with the start of production in Seattle at a merchant bar mill built by Alaska Steel Mills, Inc. Operating at 30 tons daily, it's shooting for 100 tons.

The company is controlled by a group of Alaska contractors, headed by Pres. Lloyd Martin of the Alaska Associated General Contractors Assn., who seek their own, cheaper sources of reinforcing steel. Steel now is brought in from the other states and abroad.

Originally, they intended to erect the mill in Fairbanks. Delays in building their own power plant forced them to build in Seattle instead. If this one proves "reasonably successful," one director said, a second mill would be built in Fairbanks—perhaps in 1961.

With the boom in construction in Alaska—largely for the military—**the contractors seem to feel that their own steel mill would give them an edge in bidding.** A local mill would eliminate freight costs from the Northwest. The contractors hope to offset Alaska's higher labor costs with the cheaper cost of local scrap, for which there has been no use up to now.

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Section of Boston Common Seized By Authority for Underground Garage

Part of the historic Boston Common changed hands last week for the first time since 1634 when the town fathers bought the land for £30 from one William Blackstone.

By condemnation, the Massachusetts Parking Authority seized a third of the Common for an underground 1,900-car garage to be financed by revenue bonds. **Court tests are certain from opponents of tearing up the Common even though the authority has avowed to "restore the Common exactly to its present condition."**

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Discrimination Ban in Housing Sales Held Unconstitutional by Seattle Judge

Washington is one of eight states that prohibit discrimination in the sale of housing when the mortgages are backed by the FHA or VA. Last week, a Superior Court judge in Seattle held the state law unconstitutional. The decision probably will be appealed all the way to the U.S. Supreme Court.

A Coast Guard commander had his house up for sale and accepted money from a Negro mailman. Then the commander said he changed his mind and would sell to a white neighbor instead. The State Board Against Discrimination then stepped in, charging violation of the 1957 law against discrimination in publicly assisted housing. **Recognizing that a test case was in the making and that top lawyers were needed on both sides, the Seattle Real Estate Board bought the commander's equity.**

Last week, Superior Court Judge James W. Hodson held that the state law violated the Constitution. On the one hand, he acknowledged, there is the right of an individual to be treated equally. But, on the other hand, he ruled, **there is the "right of the owner of private property to complete freedom of choice in selecting those with whom he will deal."**

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Cigarettes and Natural Gas Sales Taxed More Steeply to Solve Texan Fiscal Woes

The Texas Legislature last week broke a stalemate of more than six months over Gov. Price Daniel's tax bill. It agreed, after 200 days, to give him virtually all he wanted in the state's first major tax revision since 1941.

Ever since World War II, Texas' enormous growth has produced sufficient tax revenues to pay for the added cost of government. But in the current fiscal year, ending Aug. 31, Texas will wind up with a deficit of $35-million largely because of declining taxes from cut-back oil production. That put Texas in a squeeze.

To pay off the deficit and help meet growing costs of state operations, the legislature passed a bill to yield about $93-million yearly. About one-third of this will come from a raise in the tax on cigarettes—from 5¢ to 8¢ a pack. No other state charges more, and only Louisiana and Montana charge as much, but that has not blocked tax action.

The main delay was over a proposal to collect only $8-million a year from "severance beneficiaries" of natural gas. This proposal—which surely will be tested in court—established a new principle. It is designed to catch companies that pipe gas out of Texas. A similar gas "gathering" tax of 1951 was found by the U.S. Supreme Court to be a burden on interstate commerce. The new rate would be 1.5% of the amount paid at the gas well by the "beneficiary." Producers already pay a 7% tax.

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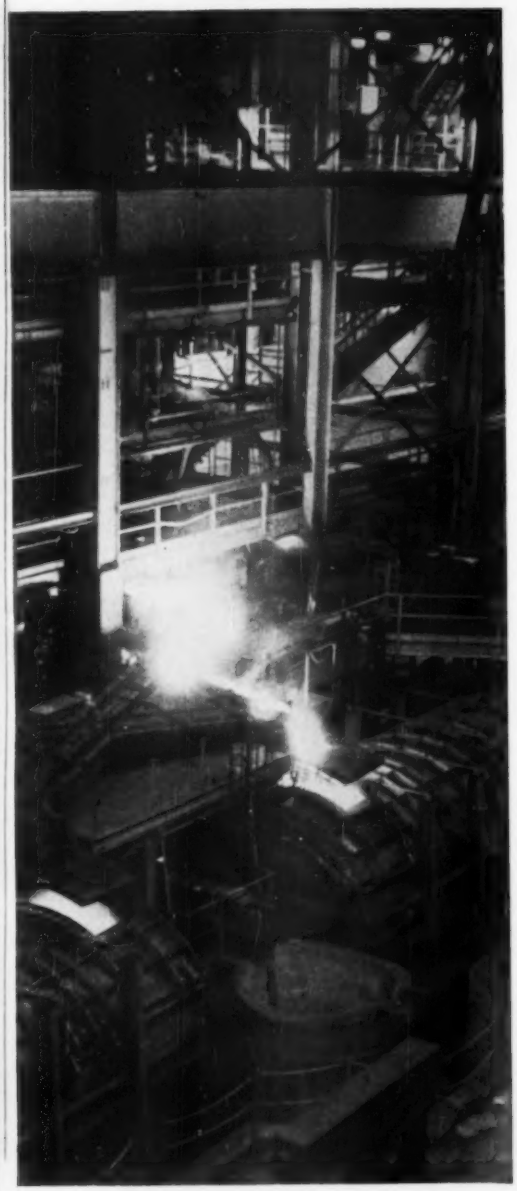
Labor Dept. Promotes 14 Areas From High Unemployment Category

Further evidence of the pervasive business recovery came in the July classification of labor market areas by the Labor Dept.'s Bureau of Employment Security.

The report showed that 14 more areas had left the "substantial labor surplus" category. They include **Baltimore, Allentown-Bethlehem-Easton, Pa.; Toledo, Knoxville, Tacoma, Mobile, Trenton, Spokane, and South Bend.** Their upgrading leaves 46 major areas with "substantial labor surplus" compared to 89 a year ago. Among the 46, Detroit, Buffalo, and Providence showed improvement from May.

PRODUCTION

New Steelmaking Combination



Acme Steel's new Chicago plant is first to hook up continuous hot blast cupola with oxygen converter.

When a maker of finished products starts producing his own raw materials, industry refers to this as backward integration. But there's nothing backward about the way Acme Steel Co. of Chicago began making steel last month before the steel strike closed down its new shop (pictures). Acme took two known iron and steelmaking processes and combined them for the first time. The result was new steelmaking capacity at the unusually low cost of $75 per annual ingot ton.

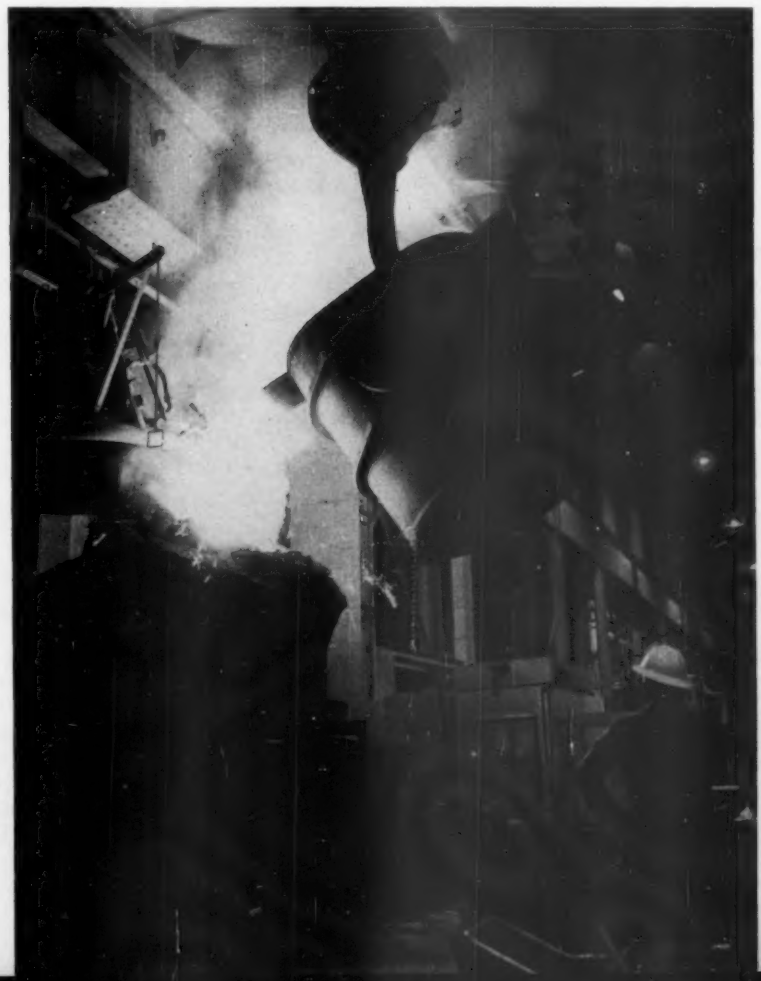
• **Supply Squeeze**—Acme's business is making steel products, often in small order lots. It used to buy semi-finished steel slabs and billets to produce steel strapping, hot and cold rolled strip, floor plate, and other finished steel products. Sales of these products last year came to $90-million in the first half of 1959, compared to $56-million in the like period last year. But, explains Acme Chmn. Frederick M. Gillies, the company finds it increasingly difficult to buy the amount of semi-finished steel it needs because mills are selling less of it. "Looking ahead," says Gillies, "we simply could not permit limited sources of supply to hamper the potential growth of Acme."

So Acme decided to produce its own steel. In choosing the type of process it would use, moderate investment cost was not the only consideration. It also needed a system that would permit it to make a lot of different kinds of steel in small batches.

• **Right Combination**—For its needs, a combination of the continuous-flow, hot-blast cupola and oxygen converter looked like the best bet to Acme. Neither technique is new, but they never had been used in combination before.

The hot-blast cupola uses scrap and pig iron to make hot metal for steelmaking, thus serving the same function as the blast furnace. But the cupola does not smelt iron ore down to hot metal in the form of pig iron as the blast furnace does. A cupola costs only about one-third as much as a blast furnace of

1 In Acme Steel's new Chicago plant, scrap steel and pig iron are melted in continuous hot blast cupola. Molten metal flows from bottom of cupola into holding furnace.



2 Bucket-like ladle pours hot metal into oxygen converter. Scrap and alloy materials are added. Then pure oxygen is lanced to burn off carbon and make steel.

3 White-hot steel is poured from converter into teeming ladle, which in turn fills ingot molds. The new plant cost $33-million.

similar hot-metal producing capacity.

The oxygen converter process Acme is using in its new plant is licensed from Kaiser Industries. Its investment cost is $15 per annual ingot ton compared to $35 or more for an open hearth of comparable capacity.

• **Low Investment**—Acme's total investment of $75 an ingot ton includes a primary rolling mill. The company figures a traditional combination of blast furnace, open hearth, and roughing mill would run at least $220 per ton. The $33-million plant, with an annual capacity of 450,000 tons, has two converters and two cupolas. By adding another cupola, at a cost of only $5-million, Acme can increase the plant's capacity by 50% to 675,000 tons a year.

• **How It Operates**—Acme has encountered no great difficulties in using its new production system. At the time the steel strike hit, says Acme, the production gang at the new plant was just turning into a smoothly operating team. This is the way steel is produced at the new plant:

The eight-story cupolas are filled by elevator charging buckets four stories higher. A charge is roughly 78% scrap and pig iron, 15% coke for fuel, 5% slag-forming limestone, and the rest fluorspar to keep the slag liquid. Burning gases pass through a dust-collecting system to preheat a hot blast of air that enters the cupola at 1,000F. Each cupola produces from 15 to 50 tons of molten metal an hour, depending on the pressure and volume of the hot blast. Yield is about 95%.

Cupola metal is about 200F hotter than blast furnace iron, with somewhat less carbon, silicon and phosphorus, simplifying the work of the oxygen converter. The hot metal flows from the cupola to a holding pot and is then ladled into the milk bottle-shaped converter.

• **Oxygen Conversion**—The converter is charged with about 80% hot metal from the cupola, scrap to cool the charge, and various additives to produce the desired grade of steel. Even stainless can be made this way, Acme says. An oxygen lance probes down into the converter from above the charge, and burns out carbon at about 3,000F. The 40-min. cycle produces about 50 tons of steel, or about 1,200 tons per day. About 2,000 cu. ft. of oxygen are required to convert metal into a ton of steel. So a 50-ton heat requires 100,000 cu. ft. from Acme's new oxygen plant.

The converters tilt in two directions, one for pouring off slag and one for tapping steel. A practiced eye can tell the point at which a heat is ready to be tapped. At this point, the booming noise and flames die down, since most of the carbon is burned out. The oxygen is metered and cut off at the exact

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point the carbon is reduced to the desired percentage.

• **Maximum Flexibility**—As far as Acme is concerned, the cupola and converter both offer maximum flexibility. For instance, progress in the beneficiation of low-grade ores (increasing the concentration of iron in them) and direct reduction (making iron from ores without smelting) may enable the cupola to make hot metal from special ores as well as scrap. "As soon as we get rolling smoothly, we'll try out some mixtures of ore forms and scrap," says Chmn. Gillies.

• **Small but Fast**—Acme also felt the oxygen converter offered greater product flexibility than the open hearth. An open hearth may make 350 tons of steel in one heat, while the oxygen converter makes only 50, but the converter works faster and turns out a comparable annual tonnage.

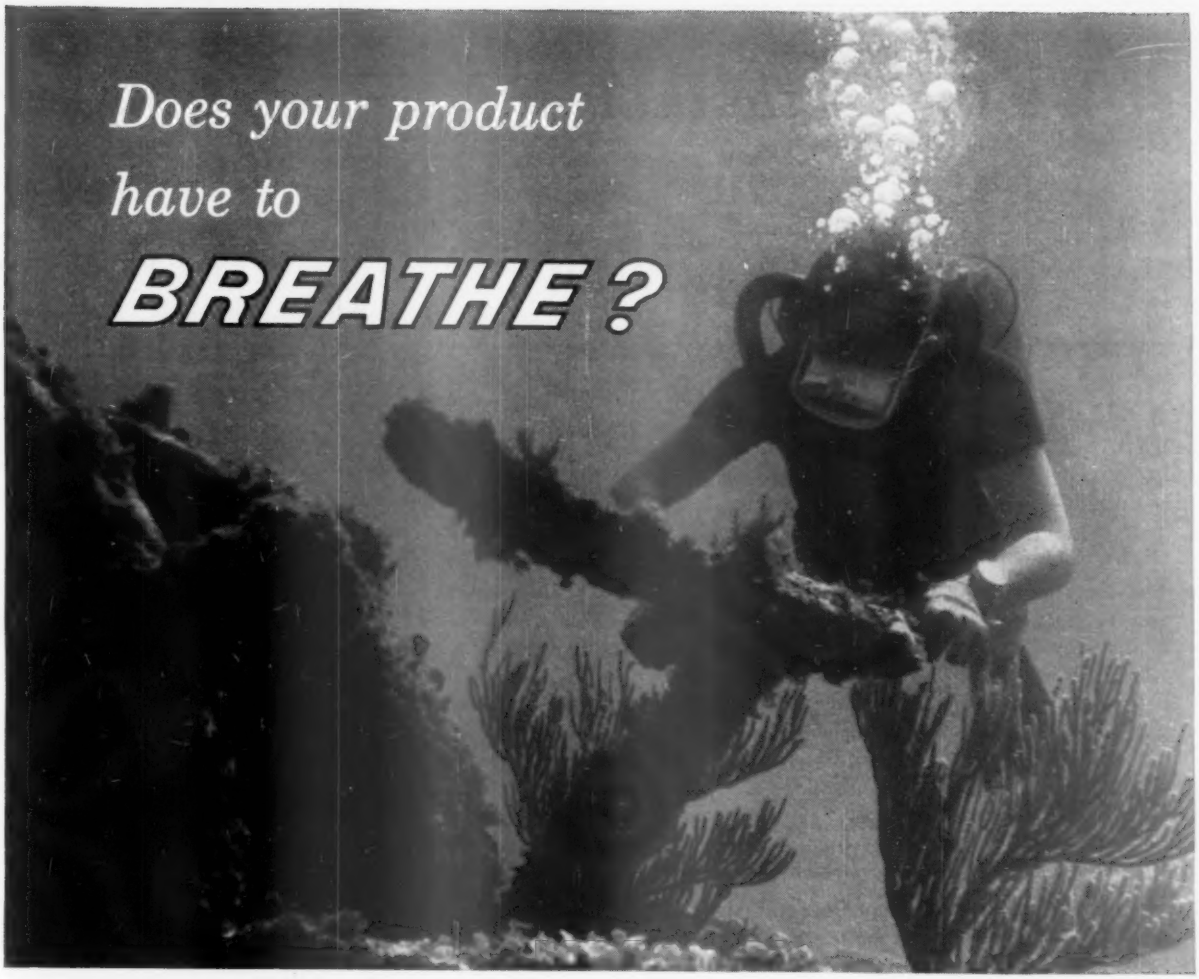
At U.S. Steel's Fairless Works, for example, a 320-ton open hearth turns out a heat every 8-10 hours, for a rate of about 40 tons per hour. Acme figures it will get its converter down to a 40-min. tap-to-tap time, an average of more than 70 tons per hour. At this rate, Acme can get as many as 36 different steel batches for different purposes in 24 hours, filling multiple small orders for its customers.

Acme ruled out an electric furnace for converting hot metal into steel because it felt an oxygen converter can produce the steels it needs in better quality for larger batches.

• **Cost Comparison**—At any rate, Acme feels it's riding with an industry trend to oxygen conversion. A primary reason for its increasing popularity is a cheap conversion cost approaching that of the open hearth, with a much lower initial investment cost.

Industry experts disagree on estimated costs for converting iron to steel because of a wide range of variables like steel grades and the materials that go into a charge. One set of estimates, however, puts the cost of converting iron to steel in a 50-ton electric furnace at $18-$24 per ton of steel; in a 50-ton oxygen converter, $15-$18; and in an equivalent 350-ton open hearth, at $11-$14 per ton.

• **Operating Savings**—Previously, Acme laid out up to $60-million a year for its raw materials. With the new mill, outside purchases, mostly steel scrap and pig iron, shouldn't run higher than $20-million. The difference is not all clear savings, of course: Acme now has to pay for oxygen (about 75¢ per ton of steel), fuel, 200 mill workers, and other operating costs. But there should be an extra saving. Formerly, in tight markets, Acme's suppliers were forced to cut its allotment of slabs and billets sharply, and Acme in turn was forced to buy what it could where it could,



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usually paying a premium. Acme then had to absorb this premium itself.

In actual cost per ton, taking into consideration operating costs and average scrap prices, Acme expects to shave $8-$10 a ton off what it used to pay other mills for semi-finished slabs and billets. According to Gillies, when Acme's full capacity of 675,000 tons is operating in 1961, "over-all costs will be reduced by $2-million annually."

• **Scrap Problem**—Scrap, of course, is Acme's major raw material, constituting about 70% of the cupola charge and up to 30% of the converter charge. Scrap prices have been subject to wide swings in the last few years. This could cause trouble for Acme. Vice-Pres. John North admits, "We could not run effectively if the price of scrap went above $60 per ton as it did in 1956."

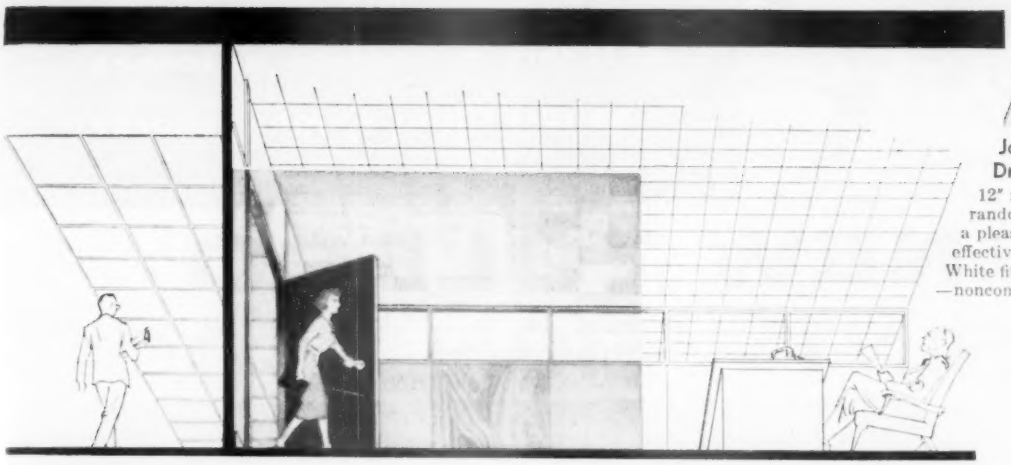
But there's good reason to think that 1956 won't repeat itself. The big mills have changed their buying practices, accumulating scrap in bearish markets and drawing on their own inventories, sintered ores, and blast furnace product during a bullish one. Acme itself has been accumulating scrap in this manner for the past several months.

• **Improved Service**—The new mill piles up many advantages for Acme—more capacity per dollar invested, cheaper supplies, assured supply in a tight market and improved quality control. But the Acme officials feel the real gain for them is in better inventory supplies and reserves, and better mill scheduling and delivery to customers.

For Acme, the setup is ideal: It is producing for its needs, in relatively small batches. Often Acme customers—steel platers, precision machinery makers, appliance fabricators, farm machinery and automative manufacturers—require only small tonnages.

Previously, the Acme purchasing agent was forced to buy minimum mill amounts, leaving in inventory steels that would sit as long as 12 months before they were in demand again. And often, Acme sources did not have needed steels in inventory or on schedule, thus holding up customer orders six to eight weeks. Vice-Pres. North says: "We can now run an order through the primary mill in one week, and the finishing mill the next. From the day we get an order for strapping, we shouldn't take more than three weeks to deliver the goods." Usually, the larger mills figure on a minimum of 30 days.

Acme's immediate plans are to add the $5-million third cupola, which should provide enough hot metal for its two operating converters and enough steel to cover Acme's needs for several years of expansion. At full capacity in 1961, the investment per annual ingot ton should drop from $75 to $60, probably a new mark for the industry. END



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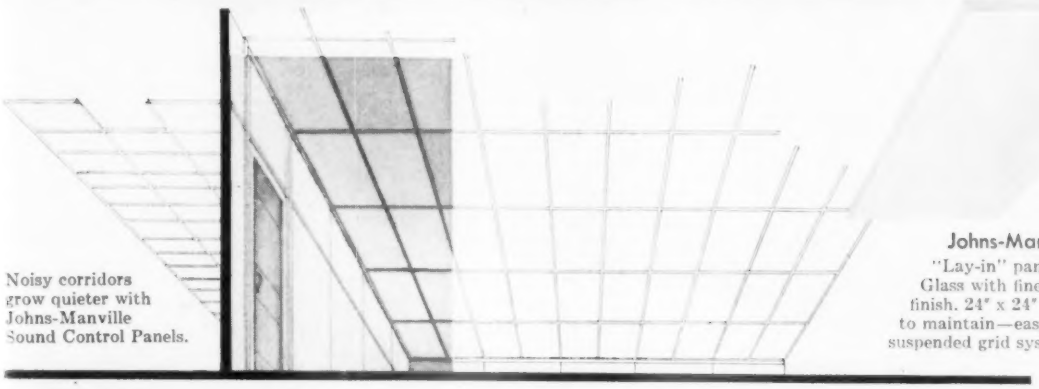

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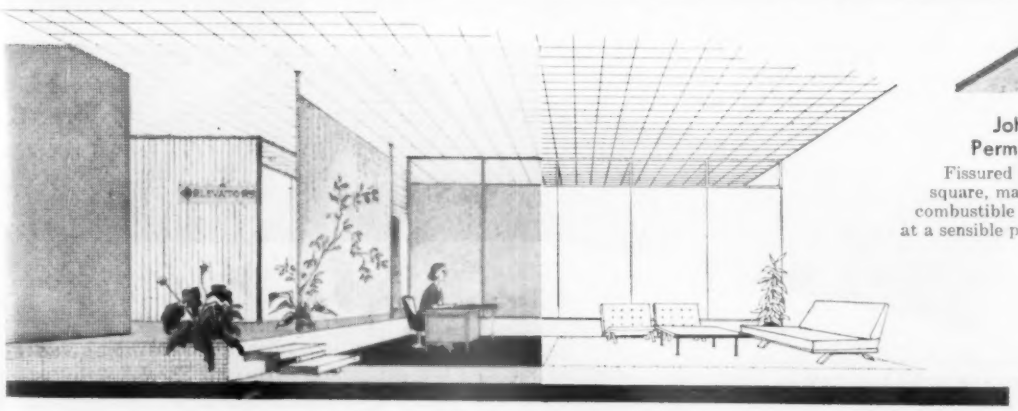

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Hard Rock Yields to Rotating Cutters Of Machine for Horizontal Tunneling

A new kind of tunneling machine for boring horizontally into hard rock has been unveiled by the Hugh B. Williams Mfg. Co., Dallas, an affiliate of Hughes Tool Co. (picture). It rejoices in the name of "tush hawg"—by East Texas pronunciation and definition of a large wild boar that can dig up the ground or anything else into which it gets its large, long tusks. Instead of tusks, this tush hawg has nine rotating cutters on its head, mounted to cut circular paths 10, 20, 30, and 40 in. in diameter. The cutters resemble those of an oil drilling rig, though their primary purpose is to bore a horizontal hole instead of a vertical one.

The 40-in. machine is a prototype for a 10-footer still to be built. **Designed to chew up hard rock at 8 to 12 ft. per hour, it has a conveyor system underneath that can remove 200 cu. ft. of rock cuttings per hour.**

The tush hawg may challenge an earlier competitive machine designed mainly for larger holes—8 to 26 ft. in diameter. This device cuts with a notched disk instead of with the gear-like rotary cutters.

• • •

U. S. Rubber's Chemical Additive Combats Premature Aging of Tires

U.S. Rubber Co. has a new weapon against an old enemy of the industry. Its new chemical additive combats the forming of cracks in the treads and sidewalls of rubber tires. **Flexzone 3-C, basically an anti-oxidant, protects tire rubber from attack by ozone and oxygen** when heat builds up in tires under heavy loads and high speeds.

According to U.S. Rubber, road tests of 194 heavy-duty truck tires running into thousands of miles showed that the new anti-oxidant markedly improves tread-cracking resistance.

• • •

Aviation Agency Tests System To Halt Runaway Airplanes

The danger of airliners overrunning airport runways when something goes wrong in landing or take-off may be ended by a new system the Federal Aviation Agency is testing at its Atlantic City, N. J., evaluation center.

In this system, developed by All American Engineering Co. of Wilmington, Del., **the runaway will be snared by cables extending across the runway at such a height that they will hook the disabled craft's landing gear.** The cables, in turn, are attached to pistons slotted into long, slender water-filled tubes buried alongside the runway. By pulling the pistons through the tubes, the snared runaway will be brought to a smooth stop.

Similar systems, also developed by All American, are slated for installation at 25 Air Force bases under a $3-million contract recently awarded the company. The Air Force, however, will equip its F-106 series fighter with tail hooks and stop them more or less Navy style.

• • •

Electronic Checkout Device Tests Plane's Guns Before Flight

Automatic checkout equipment that will tell Air Force mechanics whether the B-58 Hustler's complex, automatic "Gatling" type 20-mm. stinger in the plane's tail is in working order was unveiled last week by Emerson Electric Mfg. Co.

Checkout units—which cost between $500,000 and $1-million each, depending on the thoroughness of the job they can do—enable the Air Force to use semiskilled mechanics to check out the computer-directed, tail cannon. Capable of firing 6,000 rounds per min., the lightning-fast tail gun rotates its barrels for cooling purposes. It also has its own radar system.

Emerson's checkout units are of two types: (1) flight line equipment that tells an AF mechanic whether the equipment is functioning correctly and if not, in which of the system's nine units the trouble lies; and (2) in-plant units, made up of 23 separate components, costing more than $1-million, that enable factory engineers to pinpoint faulty parts in a malfunctioning unit.

• • •

Microstoning Process Caresses Metals At High Speed to Give a Fine Finish

A new process for giving metals a fine finish, called Microstoning, uses specially formulated abrasives—principally silicon carbide, aluminum oxide, and diamond pastes—in a reverse of the usual honing process. In honing, the metal being worked oscillates while the grinding tool rotates around it; in Microstoning, the work piece rotates while the tool oscillates 2,000 to 3,000 times a minute.

This high speed is possible because of a patented self-balancing design. While the tool head is oscillating under compressed air, it is protected from externally caused vibrations.

The process was developed by a West German company, Supfina-Wieck & Hentzen. **Taft-Peirce Mfg. Co., Woonsocket, R. I., has been licensed to make the tools in the U.S.** Taft-Peirce says Microstoning can be used to remove machining marks from metal, to improve roundness where machining has caused slight geometrical defects, and to put a mirror finish on hard metals.

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Fritz Jensen picked North Carolina for his operation because the surrounding furniture industry provided a ready made market for metal fasteners. With one associate he trained 14 local people and went into production of wood screws in 1946. Production increased rapidly because trainees were quick to acquire needed skills.

Accessibility extended distribution. North Carolina is within overnight distance of all the great metropolitan centers from Boston south, and west to the Mississippi and Great Lakes. Today seven kinds of fasteners are being made at Southern Screw. An inventory of one and one-half billion fasteners is maintained.

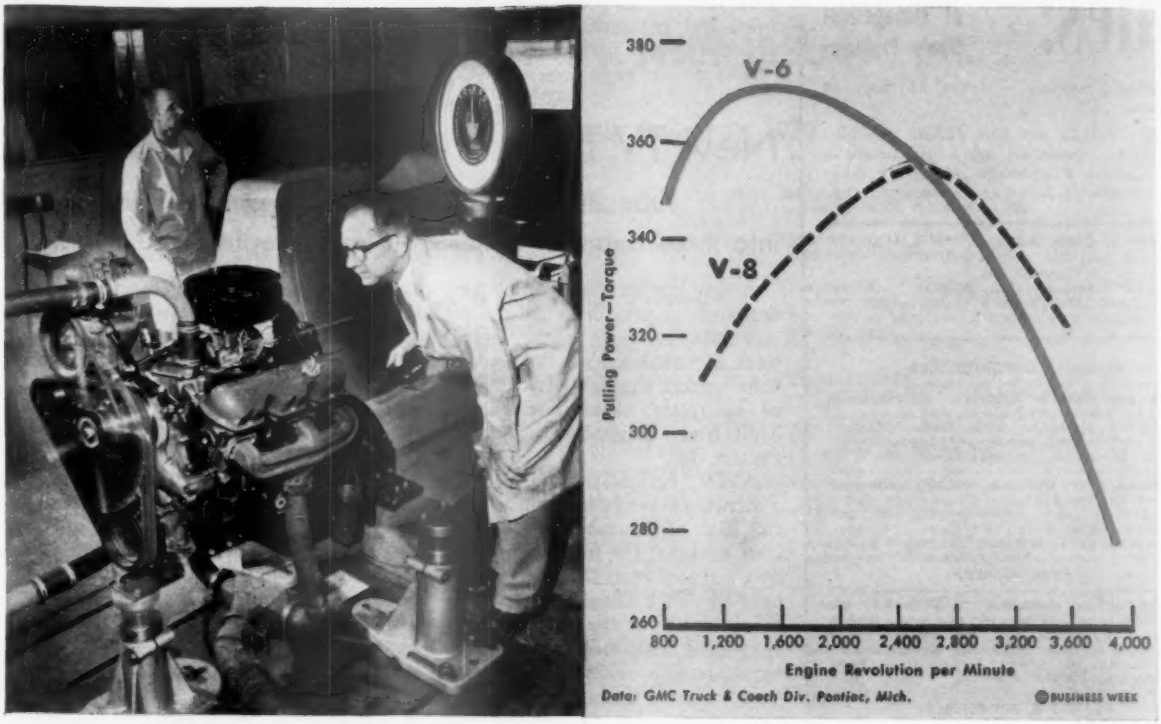
Number of employees has increased in 13 years from 14 to 800— a growth percentage of over 5614%.

Southern Screw Company is in the forefront of North Carolina's metal working industry which ranges from components to complete assembly.
Metal working industry investment for new and expanded plants in North Carolina during the last three years is in excess of $159,000,000.

For prompt and confidential plant location information contact Wm. P. Saunders, Director, Department of Conservation and Development, Raleigh, North Carolina.

Southern SCREW COMPANY

NORTH CAROLINA



COMPACT ENGINE (left) offers maximum pulling power at lower engine speeds (right) than present types, so . . .

GMC Switches to V-6 for Trucks

A new line of gasoline engines for trucks, expected to run up to 200,000 mi. between overhauls—double the performance of present gasoline engines—is being unveiled this week by General Motor's GMC Truck & Coach Div.

To get that kind of rugged performance, GMC has switched to V-6 and V-12 engines, giving up on the V-8 and in-line-6 engines that dominate the nondiesel truck engines of today. GMC says the new engines get their endurance because they can deliver maximum pulling power (chart) at much lower engine speeds—only about half the rpms. required by comparable V-8s. That adds up to operating economies and longer engine life, the company says.

The GMC people cite other advantages for their engine, designed to meet the demands of truckers for economy:

• The V-6—and the V-12 is really two coupled V-6s—has only three-quarters as many parts as a V-8, which not only makes it less costly but reduces the inventory needed by truckers and dealers.

• It is shorter than an in-line 6 and narrower (only 25 in.) than a V-8, because its cylinder banks are tilted at 60 degrees instead of 90 degrees. A smaller engine means a smaller truck cab, hence more space for freight cargo.

• The V-6 will run cooler, another factor in increased life expectancy. GMC engineers say they have stepped up the flow of coolant two or three times above the rates of previous engines.

• GMC claims its V-6 engine is more accessible than many V-8s, and has achieved maximum interchangeability of parts. For example, two engine heads cover the needs of all four models that GMC is offering.

The new engine offers still another bonus: It runs more smoothly than the GMC engineers had dared to hope, more smoothly even than some in-line 6s.

Adding all their shifts and innovations together, the GMC engineers believe they have an engine whose life span will match the diesels at a lower initial cost.

• **European Cars**—The V-6 engine, though new to U.S. production lines, is no novelty in Europe, where it is used highly successfully in the famous Italian sports cars, Lancia and Ferrari. The V-12 was once used in U.S. passenger cars but the last ones dropped out in 1948 when Lincoln gave up the type.

The GMC truck line consists of four models: three V-6s ranging in displacement from 305 cu. in. to 401 cu. in., and the V-12 which achieves 702 cu. in., by twinning two V-6s in tandem. Parts are interchangeable between V-6 and V-12, except for the cast block, crank shaft, and the like.

These models are destined to replace the present GMC line of three in-line 6s and two V-8s. The company hasn't said when the engines will be available, but Detroit expects to see them on the 1960 models this fall.

Essentially, the V-6 is the answer to a demand for more economical trucks that has been building up for some years. GMC is the first to adopt the V-6, but Ford, Chrysler, and American Motors have all had experimental engines of the type.

• **Independents**—Up to 1955, all the trucks turned out by the Big Three were either giant in-line 6s, or beefed up passenger car V-8s. Meanwhile, such independents as International Harvester and Reo had come along with high-compression V-8s designed specifically for trucks and offering full power at much lower engine speeds and much greater durability than the converted passenger V-8s.

So, in 1955, both Ford and GMC designers began to consider the specific needs of the truckers. Last year, Ford came along with some really heavy duty

truck engines. And GMC—which along with Dodge had been losing ground to Ford and International since 1950—is countering now with its V-6 and V-12.

The new engines aren't GMC's only bid for truck business. Other recent improvements are lightweight aluminum tilt-cab highway tractors, independent front wheel suspensions, and snap-out instrument clusters.

New TV Tube Promises Sharper Picture

Tube developed by Multi-tron splits electron stream into three beams. Company aims at replacement market.

A new kind of television picture tube designed to provide a clearer picture, especially in areas where signals are weak, is scheduled for the replacement tube market this fall. It's the product of six years' development work by Multi-tron Laboratory, Inc., Westchester, Ill.

A TV picture is made by throwing a stream of electrons from a "gun" at the back of the tube onto the fluorescent screen at the front. The luminous spot created on the screen will be light or dark according to the way the intensity of the electron stream is controlled. This control is accomplished by applying a voltage to a component called a grid, through which the electron stream passes, and varying the voltage according to the signal from the transmitter.

• **Split Stream**—The new Multi-tron tube splits the electron stream into three beams as it leaves the gun; these can be controlled by one-third of the voltage needed for the ordinary tube grid. This lower voltage helps make it possible to operate the tube with a weaker video signal. It also increases the contrast of the picture because you can get a darker dark spot with a lower voltage.

Before the three electron beams hit the screen they are refocused into a single stream. This refocusing, according to Nicholas Glyptis, president and chief of engineer of Multi-tron, makes it possible to concentrate more electrons in the center of the stream than is done in an ordinary single-beam tube, making a sharper spot on the screen and further increasing the clarity of the picture.

Glyptis says the experimental work indicates that the more electron beams you use the less grid voltage you need. Engineers have gone as high as 16, but they settled on three because a three-beam tube needs no special circuitry to fit into existing TV sets, and the components of the three-beam tube are cheaper and easier to make in quantity than those for a tube with more beams.

• **Skeptics**—Other electronic experts, while admitting that the Multi-tron tube would stand the market on its ear if it works, are skeptical that it can be mass-produced. Glyptis feels it can since, he says, Multi-tron has solved such tough problems as making the triple-aperture grid that generates the three beams from the electron stream. It was originally made of wire, but now it's etched from a metal disk in order to produce parts with identical tolerances.

Multi-tron is interested in the replacement market, but Glyptis says two manufacturers are interested in licensing the tube for original equipment. The company will make the whole tube in small quantities and furnish the basic electron gun in large quantities. Price of the tube will be comparable to brand-name tubes—about $19 to distributors for the 21-in. size.

Radio Senders Tracked By Cluster of Antennas

A new electronic system increases accuracy in finding the direction from which a radio signal is being transmitted. It will be used mainly in air traffic control. The system was developed by Standard Telephones & Cables Ltd., the British subsidiary of International Telephone & Telegraph Corp.

The direction finder depends on a circle of 12, 18, or 24 antennas on the roof of a receiving shack. A radio signal from a given point takes a slightly different amount of time to reach each antenna; electronic comparison of the times indicates the direction the signal comes from. The antennas are connected and disconnected from the radio receiver at a very high rate, so each is sampled 1,000 times a second.

The equipment that compares times and determines direction puts out a signal to a cathode ray tube that draws the direction line on the face of the tube, somewhat like a radar screen. Two or more of the direction finders could determine a pilot's position as well as his bearing by extending the direction lines until they intersected.

The system has two advantages, according to IT&T. It is hardly susceptible to the errors caused in older systems by radio signals bouncing off trees and buildings. It is designed to operate with an error of one degree compared to 25 or 30. And it needs no mechanically operated elements like rotating antennas. **END**

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THE TREND

Away From "Peace by Terror"

A great human drama, perhaps of history-making proportions, will unfold when Premier Khrushchev comes to this country in September and Pres. Eisenhower goes a little later to the Soviet Union.

The leaders of the world's two great power blocs, two men of vastly different backgrounds and values, will be meeting in what must be taken as a mutual effort to understand each other better. In their frank exchanges of views, each will have complaints about the attitudes and policies of the other, and, no doubt, these complaints will be aired publicly as each makes his tour through the other's country.

During this process, it is not too much to expect that the two nations—possessing what the rest of the world increasingly regards as two alternative forms of 20th Century society—will get to know each other a little better. At the very least, the exchange should dispel some of the fear and suspicion that has compounded the very real conflict of interest and principle that divides us. The statesmanlike performance of Vice-Pres. Nixon during his Soviet visit already has demonstrated that it is possible for an American political leader to make some headway with the Russian people in this respect. During his recent tour of this country, Deputy Premier Kozlov likewise did something to remove distrust.

In taking on such an ambitious and arduous personal undertaking, Eisenhower's stated purpose is to "melt a little of the ice that seems to freeze our relationships." But the President clearly has more far-reaching goals than this—extending, it must be assumed, to the hope that by reducing mutual distrust it may be possible to eliminate the most dangerous aspects of the U. S.-Soviet power struggle. If Khrushchev shares this purpose, even in far lesser degree, the reciprocal visits could well mark a turn in the cold war.

The Eisenhower-Khrushchev exchange, coming as it does on top of the Berlin crisis, seems to suggest that both sides recognize not only that a nuclear stalemate exists but that it must inevitably set a limit to cold war activities of the sort we have known over the past 12 years. Unless such a limit is accepted by both sides, the only peace possible is "peace by terror"—with its ever-present threat to human existence and its distorting effect on economic development throughout the world.

Arms Control

If, indeed, we have reached this point in East-West understanding, it should be possible for Khrushchev and Eisenhower to take concrete steps toward a system of arms control:

- One of the most obvious steps would be a controlled ban on nuclear tests, an area where Soviet and U. S.-British experts seem close to agreement.
- Then, the two leaders should start clearing the ground for controls against surprise attacks.
- If real progress could be made in these fields, it might be realistic to think of a gradual reduction in the arms expenditures of both sides.

Even the first tentative step toward arms control, such as a nuclear test ban, might well provide the occasion for Washington to reconsider its policy on U. S.-Soviet trade. If our relations are to be put on a more normal footing, trade policy clearly is something that needs to be "normalized"—perhaps to the point where it conforms broadly with the policies Britain now pursues in its commercial relations with the Soviet Union.

Meanwhile, of course, this country would expect Khrushchev—either in his talks with Eisenhower or subsequently at a Big Four summit meeting—to forego his plans to undermine the Western position in Berlin. In their effort to take the heat out of the Berlin situation, the Western foreign ministers have made all the concessions they can—without being able to prevent the Geneva conference breaking off this week in a stalemate.

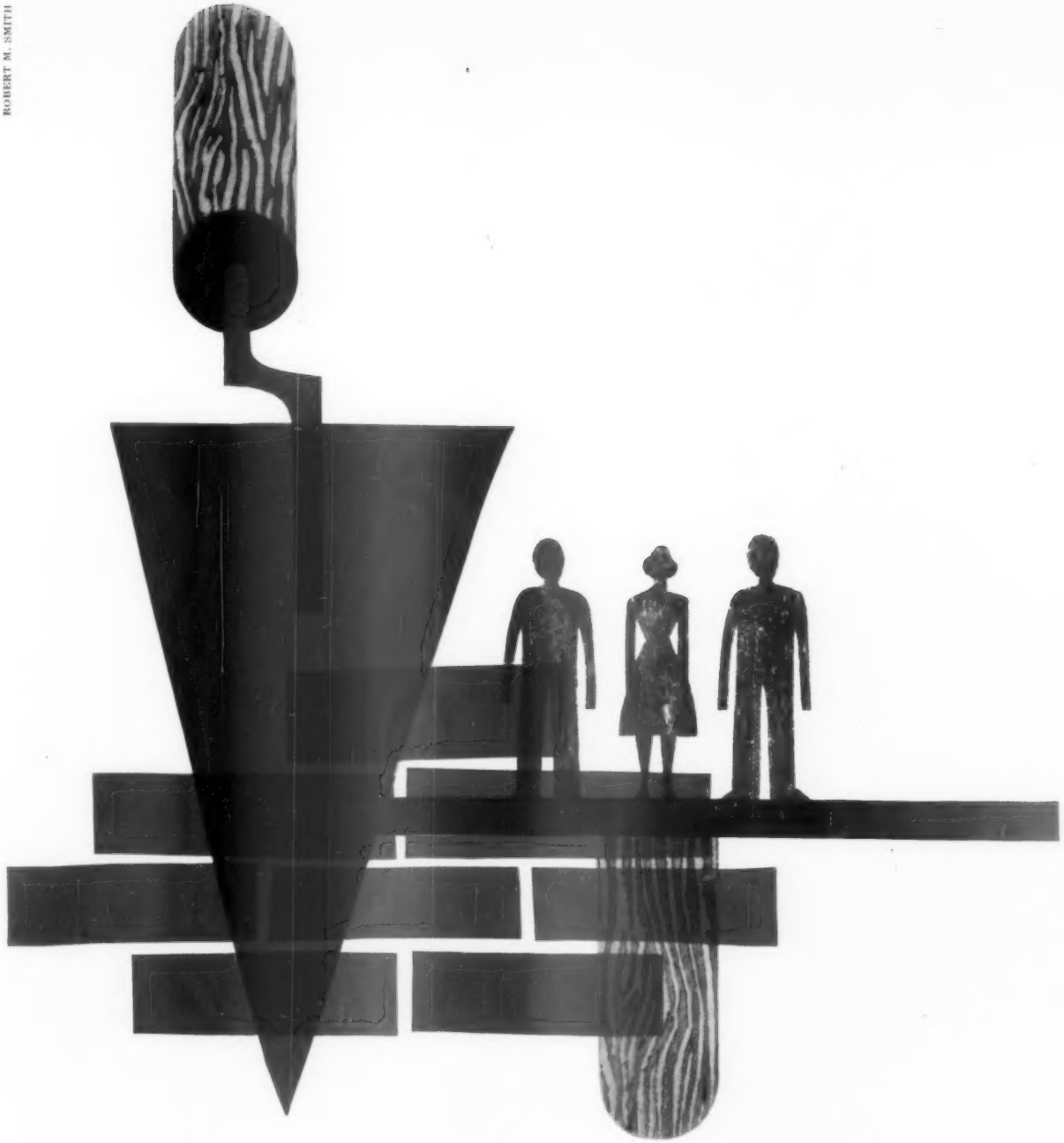
In all this, there is no promise of a millennium—no prospect that the U. S.-Soviet contest for world leadership will abate. Khrushchev and most of the upper layer in Soviet society fully expect Communism to prevail over Capitalism throughout most of the world before the century is out. As the Soviets push toward this goal, there is no reason to expect them to drop either their interest in, or support for, the revolutionary movements in Asia, the Middle East, and Africa. The most that can be expected is a change in the ground rules governing the Communist-Capitalist contest, so that military aggression, direct or indirect, is put out of bounds.

Long Memories

Fortunately, the majority of the American people do not expect the Eisenhower-Khrushchev exchange to produce any miraculous transformation of East-West relations. There may have been some such illusion about the summit meeting of 1955. But the results of that meeting, with its aftermath in Poland, Hungary, and the Middle East, have bitten deep into the American consciousness.

The national attitude today might be described this way: If Khrushchev is ready to ease tension by a give-and-take process, and to accept ground rules that give meaning to his talk of peaceful competition between Communism and Capitalism, that's fine. But until there is concrete evidence of this, it would be unwise to take warm words of friendship for a genuine thaw in the cold war.

ROBERT M. SMITH



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